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LECTURES

ON THE

DISEASES OF THE BONES AND THE JOINTS.

BY

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LECTURE IV.

Manner in which cartilage becomes ulcerated, and how those portions of it are removed which disappear in the ulceration. The terminations of ankylosis. Treatment of ulceration of cartilage, and chronic inflammation and puffy swelling of joints. Tuberculous deposit in the heads of long bones. Disease of the whole of a joint, False symptoms of affections of joints. Caution to be observed before pronouncing the persons complaining to be malingerers.

In consequence of articular cartilage being considered a non-vascular tissue, like epidermis or nail, and properly so, perhaps, in the *healthy condition of parts*, the subject of *ulceration of cartilage* in diseased joints has long been involved in mystery. From this supposition, which you will have reason to believe to be incorrect as regards joints in a state of disease (and you will have ocular demonstration to the contrary), it has been conjectured that the particles were removed by the action of some neighbouring vessels.

Mr. Key maintains that the synovial membrane has a great deal to do with the ulceration of cartilage; and he refers to the supposed absorption of dead bone, in some cases of necrosis, by the action of the vessels in the living shell. We have already seen, when speaking of the separation of sequestra by ulcerative absorption, that the illustration at least is fallacious, and that when bone is once deprived of its vitality it is never again acted on by living tissues so as to cause the slightest alteration in its size or weight. We now come to the proposition itself, and I shall here show you that there are means by which portions of cartilage may be removed without the intervention of the vessels of neighbouring parts.

When you inject a diseased joint in which there is inflammation of cartilage, with fine injection of parchment-size and vermilion, and afterwards make a very thin section of the cartilage, and examine it under the microscope, you will sometimes be able to see, very distinctly, a beautiful arrangement of capillary vessels, which cannot be seen in the healthy state of those parts. If the section be made in a direction perpendicular to the surface of the cartilage these vessels are observed extending upwards, in long loops, from the membrane which lies between the cartilage and the bone. This membrane, in the healthy state of a joint, can with difficulty be demonstrated, but in disease it becomes thicker, and the vessels composing it increase in size, and send offsets into the cartilage. All this is clearly seen in the specimens of injected cartilage on the table, which I shall have much pleasure in showing you, after lecture, by means of the microscope. In one of the specimens capillary vessels ramifying in the cartilage are seen injected with blood. You will observe, also, many branches perforating the cartilage and ramifying in organised lymph on the free surface. The peculiar arrangement of the vessels in these different substances cannot be mistaken by any one who has been engaged in examining them under the microscope. You must then be quite satisfied, I think, that cartilage, when inflamed, contains blood-vessels in tolerable plenty; and if there are vessels carrying blood to nourish the tissue, there must also be vessels to carry back that blood and to convey away effete and useless matter.

I am not aware that this fact has been *demonstrated* before. Sir B. Brodie argued, very correctly, the probable existence of blood-vessels in cartilage, from the fact that, although exposed to friction and pressure, cartilage does not wear away; that it is subject to inflammation and other diseases; that it is sometimes reproduced; and from other considerations connected with the functions of that tissue. Mr. Mayo, again, has referred to specimens of diseased joints

which he had injected, in which he says he has clearly shown vessels ramifying in cartilage. I have, however, closely examined these specimens, and although a few vascular fringes are seen creeping up the edges, the appearance is very doubtful and unsatisfactory, and no pains were taken to exhibit the real nature of these little streaks by the aid of a glass, and it is only by the use of a good one that the vessels in inflamed and diseased articular cartilage can be detected.

Now, in what way, let us ask, does ulceration of cartilage take place? It happens after three different fashions, and they are these:—

First. It may occur in consequence of a swollen state of the synovial membrane, producing pressure on the cartilage. In these cases the ulceration begins at the edges, and the cavities and crevices left by the process of absorption are accurately filled up by fringes or tufts of membrane. These processes of membrane merely fit in accurately, and do not generally obtain any more intimate connection. They have nothing to do with absorbing the cartilage,—no injection can be made to pass from them to the tissue beneath them, and they are only held in their place by the pressure of the atmosphere, which prevents the occurrence of a vacuum, here as elsewhere. Sometimes, however, adhesions take place and anastomoses with the vessels of the medullary web, and these adhesions may be found of considerable length, stretching across the joint.

Secondly. Cartilage may become ulcerated at a distance from the edge and from the fringes before mentioned. Thus it may be eroded from the surface of the patella, over the condyles of the femur, &c. In this case the cartilage becomes swollen and softened; it then puts on a rough and fibrous appearance at one or more points where ulceration commences, and goes on from the surface towards the bone, which may itself become the seat of ulceration when the cartilage is perforated entirely.

Thirdly. The process of ulceration may commence at the attached, and proceed towards the free, surface. I have already spoken to you of a vascular layer, or membrane, which exists between the bone and articular cartilage, which is hardly demonstrable in health, though it becomes very evident in inflammation of joints. In this third form of the ulcerative process the membrane alluded to swells up, and separates the cartilage from the bone to which it was attached. The part of the cartilage that is opposite these points then begins to ulcerate, and gets thinner and thinner, until at last it is altogether removed and a perforation made, or it is separated in the form of a thin flake, which floats loosely in the joint.

These, then, are the three forms in which ulceration of cartilage takes place. It is always, as I have before said, attended with great pain, more particularly when the roughened surfaces are made to rub over one another. In the lower animals we see this so much the case that a slight amount of the affection will ruin an animal altogether, and render him useless. In the well-known "*Navicular disease*," for example, for which many valuable horses even are obliged to be destroyed, the amount of disease found on examination is surprisingly small. This disease consists in ulceration of the cartilage covering a bone which is deeply seated in the hoof, and serves as a kind of pulley for the flexor tendon; and the pain caused by rubbing over the rough surface is so intense that the animal will scarcely put the foot to the ground, and can no longer be put to work. Here is a specimen of the disease which was given me by an excellent veterinary surgeon, the late Mr. Castle, of the 12th Lancers. The horse from which the bone was taken, a very valuable one, having cost something over two hundred guineas, became so lame that his owner had him destroyed by advice of the veterinary faculty, after all means of cure had failed. The ulcerated cavity, you will perceive, is like that in a carious tooth, and will, in fact, barely admit the end of a common dressing-probe. Yet this is the amount of change of structure in the cartilage and bone, and which had led to inflammation and tenderness to such an extent in the neighbouring parts as to render the animal a burden to himself and totally useless to his possessor.

When ulceration of cartilage has once been established in the human subject,—when the osseous tissue is exposed, and more especially if any portion of the bone perishes,—a favourable termination of the case is hardly to be expected; that is to say, it is rare, whenever disease has advanced so far, for a patient to recover without losing the diseased parts, either by resection of the joint or amputation beyond it.

Sometimes, however, a sort of *natural cure* takes place, by *ankylosis*, as it is called; the ulceration is stopped, new bony matter is thrown out in large quantities from the exposed surfaces, and the articulating ends are, as it were, glued closely to one another. Any one of the joints of the upper and lower extremities may thus become immovably fixed, and so may the vertebræ, as we shall see hereafter. Here, also, is a rare specimen, belonging to the museum of University College, in which ankylosis of the lower jaw to the temporal bones has taken place. In some of these cases the disease may be said to be cured, but in others the stiffness of the joint renders the limb worse than useless.

Now, as to the *treatment* of the affections we have just considered. Knowing the serious and dangerous changes which may occur when inflammation of a joint is

allowed to continue long unchecked, you will easily understand how acute synovitis ought to be combated with vigour and decision. In the first place, the part must be kept perfectly still and quiet,—and this applies equally to all these affections of joints,—not by means of splints and bandages (for these would only increase the irritation and swelling), but by supporting the limb on an inclined plane and cushions, the patient being at the same time confined to bed. I say this, "in the first place," because there is no chance for the most active and judicious antiphlogistic measures unless at the same time perfect rest be enjoined and preserved, so as to avoid fresh cause for inflammatory action; and because it is a point which is often overlooked, and to the omission of which we may often attribute want of success in many cases. In the next place our measures must be actively antiphlogistic, so as to make at once a decided impression on the affected joint.

If the inflammatory action be high, and the patient robust and strong, blood may be taken pretty freely by venesection, but if the patient be of a weakly habit or unhealthy constitution this may be dispensed with, and abstraction of blood confined to the neighbourhood of the joint itself.

After having thus, where necessary, diminished the quantity of circulating fluid, and consequently the tendency to inflammation, you should next relieve the congestion of the part itself by cupping, or the application of leeches. These latter should not be applied, as you sometimes see them, by six or eight or ten at a time, to a large joint, but several dozen should be put on at the beginning, and, if necessary, frequently repeated, until the pain is gone and the tenderness very considerably diminished. You will do well to persevere boldly in this plan of treatment, well knowing that if you lose the chance of putting down the inflammation at once, by using half measures, which can be of no real benefit, you run the risk of the formation of pus in the joint, after which there can be little or no hope of preserving all the functions of the joint.

I need hardly say that, with the above line of proceeding in acute synovitis, you should not neglect to purge the patient thoroughly, and keep him on low diet. After the leeches have been applied, also, the joint should be assiduously fomented with flannels, or bags of chamomile flowers, wrung out of hot water. These are more agreeable to the patient, and relax the tissue more than cold applications, which are useless.

In chronic inflammation of joints the limb may be better fixed, and all motion in the diseased articulation more effectually prevented, by means of splints and bandages, which are not likely here, as in acute cases, to cause irritation. These splints may be made of various materials, such as starched bandages, and brown paper in layers, strips of lint dipped in mucilage, a mixture of white of egg, flour, and whitening, placed between layers of linen, common pasteboard soaked in hot water, &c. All these may be formed into splints to fit the limb, and accurately enclose the joint; but perhaps the best and most convenient splints are made out of the "skirt leather," dressed without oil, prepared by Sparks, of Conduit-street. This is cut to the shape required (either to go behind the limb, or to be in two pieces, one on either side of the joint), and then soaked in warm water for a minute or two, until it becomes perfectly soft and pliable. It is then applied and kept in apposition with the limb, by means of bandages, until it is perfectly dry. When this is the case the splint is removed, its edges are pared smooth, and it is properly padded and lined with wash-leather, so as to fit comfortably to the patient.

Again, when there is much puffy swelling of the joint, you may, with propriety, imitate, in some measure, the practice of Mr. Scott, of Bromley. I need not detail to you the whole proceeding, a portion of which savours somewhat of quackery, but the principal and most essential part of it is the drawing of strips of lead-plaster pretty firmly round the whole joint, the skin being previously covered with some pieces of lint, spread with soap cerate and camphor. The latter application serves the double purpose of gently stimulating the part, and defending it from friction and excoriation; whilst the former (the lead-plaster) produces its effect by the support and even pressure which it affords to the joint, thereby preventing further effusion, and putting the parts in the most favourable state for the absorption of that already there. If necessary, leather splints may be worn in addition to these plasters.

Whilst these means are being taken the state of the general health should be attended to, and tonic medicines, suitable to the circumstances of the case, should be administered.

When tuberculous deposit takes place in the heads of long bones, little, I fear, can be done. You may, by judicious attention to regimen, &c., improve the patient's constitution and strengthen his frame, and you may flatter yourselves that under these circumstances the deposit will be absorbed. You will, however, generally find yourselves deceived, though the disease may remain long dormant. Where the disease is attended with much pain, and the patient is deprived of sleep, you may be inclined to apply leeches, but in these cases, if they are used at all, it should be very sparingly, and you should then employ counter-irritants, such as blisters of nitrate of silver, or cantharides, eruptions on the skin by tartar-emetic ointment or croton oil; or very strong tincture of iodine, may be painted on the part

with a camel's-hair brush. These should be applied over part of the joint at a time, and frequently repeated.

I question very much if the employment of deep issues, made by potassa fusa, corrosive sublimate, &c., are attended with much benefit; and I think that, excepting in very severe cases, the employment of the actual cautery, whether by the hot iron or the moxa, is not warrantable. These remedies, on the contrary, often excite a great deal of irritation, and I need not say that if any tendency to inflammatory action remains in the joint, as it will for a long period, they are calculated to cause the greatest mischief. I have a specimen in my museum of a knee-joint which was actually opened by the determined application of these deep issues, one of which, at the inner side of the limb, has ulcerated through the fibrous and synovial capsule, and was the immediate cause of the leg being amputated.

When the whole of the structure of a joint is affected with disease, so that the cartilage is ulcerated, and the bone denuded and rough; when the joint is filled with purulent matter; when there is great laxity of motion, and the bones grate over one another, if moved from side to side; when the patient suffers much pain, and his strength is beginning to be affected by the operation of the local disease on the constitution, nothing can be hoped to be effected without removing the disease altogether.

Sometimes, as you will hereafter learn, this may be done by excision of the joint; but at other times it implies the amputation of the limb above the diseased joint. When we come to surgical operations I shall have to consider the kind of cases in which either operation is desirable.

Before dismissing the general consideration of diseases of joints, I may just mention that severe pains in these parts are often complained of, particularly by weakly children, without any actual disease of the part, and merely from a deranged state of the general health. When the bowels, for example, are deranged by the presence of worms, or sordes, pains are felt in the hip or in the knee, and these may be severe enough to make persons believe that the joints are affected, and treat them accordingly. These symptoms are not, however, got rid of until the source of irritation is removed; and when perhaps, by a brisk purge, some worms are expelled from the intestinal canal, the joint becomes in a little time free from pain, although it has not itself been treated.

Again, in some nervous persons, such as hysterical young women, you may meet with many symptoms of ulceration of cartilage, such as great pain on moving the joint, inability to use the limb, &c., and there may even be, when the knee is complained of, some puffiness about the patella. But on more attentive examination you are able to find out the nature of the case. You find that the patient does not suffer more when the joint is roughly handled than when it is gently and carefully moved; that there is as much tenderness evinced when the skin alone is pinched very gently as when pressure is made directly into the joint; and that though the patient, if asked, complains of constant and severe suffering, the whole will be forgotten when the mind is engaged in conversation or otherwise. Where such a case is clearly made out, of course you would treat it accordingly, attending principally to the re-establishment of the patient's health and cheerfulness, by the use of tonic remedies, changes of scene and occupation, &c., rather than applying any very active measures to the joint itself. In some cases belladonna-plaster may be useful to soothe the part, or any other similar application may be made, for the same purpose, with advantage. Sometimes, also, it is necessary to use stimulating ointments and liniments, and even to employ a considerable extent of counter-irritation, as though there were actually inflammation of the joint. There may, of course, be some chronic disease of the synovial membrane, which is apparently exaggerated in importance by an hysterical and nervous patient, and that should not be overlooked. Indeed, although it is right that you should be aware of the existence of these nervous affections of the joints, yet there is great danger in taking up the idea too strongly and too readily. In military practice, in particular, the suspicion that men are simulating disease in order to escape work which they are obliged to undergo when well, often causes chronic affections of the bones and other parts, to remain long unattended to, or, at all events, not to be treated so attentively as the cases really require. I have in my collection a specimen taken from the body of a soldier, who must have suffered great torture during the latter part of his life, and yet was looked upon as an imposter, or "malingerer"—or one who exaggerated his sufferings unnecessarily. He complained for a long time of pain in the back, rendering his work exceedingly irksome to him, and at last disabling him altogether. For a long time no notice was taken of his complaint; at last he was taken into the hospital, where he died, and after death it was found that extensive disease had taken place in the lumbar vertebræ. You should, therefore, be very careful in your examination, and be cautious how you pronounce a case to be a purely nervous affection, for should it at a future time be ascertained that the joint is really diseased it would be a very awkward circumstance.

In the next lecture we shall commence the consideration of the diseases of particular bones and joints.

HOSPITAL FOR THE CURE OF DEFORMITIES.

COURSE OF LECTURES

ON THE

DEFORMITIES OF THE HUMAN FRAME.

BY

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Delivered at the Orthopædic Institution, Bloomsbury-square, in 1843.

LECTURE IV.

Contracted knee from disease; or angular knee ankylosis. Varieties. Mode of distinguishing remediable from irremediable cases. Complication of contraction of knee with displacement of articular surfaces. Treatment: mechanical means; section of ham-strings, &c.

ANGULAR contraction and deformity of the knee (false angular ankylosis) is the more frequent result of disease of the articulation, and presents itself in numerous grades of severity. The articulation may, from the previous disease, have undergone the smallest appreciable injury in structure and function; or the greatest amount of disorganisation, ulceration, adhesions, cicatrices, and luxation, compatible with remaining motion, may exist. The contraction may vary from a few degrees, the sole being scarcely raised from the ground; or it may be so considerable that the heel almost touches the nates. In the majority of cases, the knee is flexed less than to a right angle, as in fig. 1; sometimes it does not exceed that which is represented in this figure, locomotion being frequently in

Fig. 1.

Angular knee deformity from articular disease.

such cases impossible, excepting with the aid of a crutch and stick, or a raised shoe. Artificial support beneath the knee, or crutches, become often indispensable to locomotion.

The muscular shortening corresponds with the contraction. The tendons of the biceps and semi-membranosus and semi-tendinosus muscles are tense when extension is attempted. Sometimes the biceps appears alone contracted; but, in such cases, section of the inner hamstrings is usually necessary to complete the restoration. In false angular ankylosis of many years' duration, the lower portion of the vastus externus, and the portion of the fascia lata with which it is connected, and even the sartorius and gracilis tendons are much contracted.

Emaciation and wasting of the bones, accompany every case of angular knee-ankylosis. Occasionally, some contraction of the gastrocnemii, and other posterior muscles of the leg, coexists. The degree of motion remaining is variable; in some cases in which the contraction habitually amounts to 70° or 90°, the limb admits of slow extension by pressure, and reduction of the contraction 20° or 30°. The kind of resistance felt on attempting to make extension may be termed elastic. Sometimes free motion within a limited range exists, a sudden stop to further movement being perceptible. Occasionally the knee cannot be extended beyond a right angle, but freely admits flexion, so that the heel may be approximated to the nates. In many cases, however, there is no perceptible flexion or extension, the joint being truly stiff: here the question of the existence of true ankylosis arises. The absence of osseous union between the tibia and femur, or between the patella and either of those bones, can only be determined by the most accurate investigation. If the patella be free, or merely united by membranous or ligamentous tissues, some slight motion on its perpendicular axis may be discovered; one of its edges, more commonly the inner, may be depressed. A slight movement of the edges of the tibia and femur where they are applied to each other may sometimes be felt.

In addition to these means, you will observe whether, on endeavouring to extend the limb, the hamstring muscles be rendered tense. Caution is necessary when resorting to this source of diagnosis, lest the voluntary tension of the muscles by the patient be mistaken for that maintained by the attempt to straighten the limb. The patient's mind should be diverted during the examination; and you should observe whether the tension and relaxation of the tendons be really produced by the alternate extension and relaxation of the limb effected by your hand. I have already alluded to the production of pain on the contracted and uncontracted sides of the member, and the relative value of the infor-

mation derived therefrom (lecture, p. 43). The external configuration of the knee in angular ankylosis varies; the joint may be rigidly flexed, the form not differing from that of the sound knee similarly flexed. This is often the case in ankylosis resulting from phlegmon affecting the entire limb (as at fig. 2), or after rheumatic inflammation of the joint; whereas, in other instances, especially after strumous and other forms of synovitis, in which softening and disorganisation of ligaments have taken place, the muscles have not simply contracted the articulation, but they have likewise altered the relation of the articular surfaces, and occasioned partial luxation and deformity, as in these models (figs. 2 and 3).

Fig. 2.

Fig. 3.

Front and lateral views of stiff knee-joint, from chronic (strumous) disease, excited by general debility, consequent on an attack of fever.

The displacement invariably consists of a dragging backward of the head of the tibia from the anterior and inferior part of the articulating surface of the condyles of the femur by the continued action of the hamstring muscles, and is increased by the rotation outwardly of the head of the tibia, effected by the more powerful action of the biceps, favoured probably by the peculiar arrangement of the crucial ligaments, and sometimes by the patient, during the articular disease, having reclined on the back whilst the limb was placed on the outer side. This outward rotation of the tibia is accompanied with eversion of the leg. The patella and its ligament are abnormally placed on the external condyle. The conjoint phenomenon of displacement, rotation, and eversion of tibia exists in different degrees; it may be slight, or almost complete dislocation of the tibia may be present, and even the anterior surface of the tibia may be applied to the posterior part of the femoral condyles, and the utmost deformity result, as in this model (fig. 4).

Fig. 4.

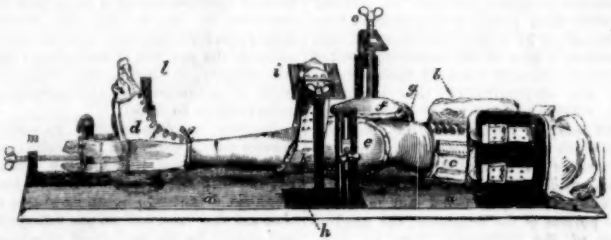
Angular incomplete knee-ankylosis from white swelling.

The great majority of cases of false ankylosis of the knee are unaccompanied with pain. If, therefore, pain be constantly present, or if, after exercise, some part of the

articulation be painful, particularly if the ankylosis be not complicated with displacement, we may suspect that the original disease of the articulation has not subsided. But if displacement exist, and pain on the inner side of the articulation be experienced only after unusual exertion, and it subside after moderate rest, without application of remedies, we may infer that it is the result of an undue straining of the ligamentous structures of the part, consequent on the weight of the body being inefficiently borne by the contracted limb, and its having a tendency gradually to produce a further displacement.

Treatment of Angular Knee-Ankylosis.—When, from the existence of mobility, the absence of disease of the articulation, or other insuperable obstacle, you may have determined the remediableness of a case of false ankylosis, you will then decide on the propriety of confiding to mechanical means, or of resorting to surgical operations. I have already, in the remarks on the treatment of ankylosis, indicated the principles on which the treatment should be conducted. The apparatus that I have found serviceable under such circumstances, is a common splint, bandaged on the contracted side of the articulation, during the intervals of the manipulations, frictions, and baths, or if the flexion of the limb prevent the application of a perfectly straight splint, each of a series of tin splints, at different angles, may be successively employed, until the limb is perfectly straightened. A very common and excellent contrivance consists of two wooden or metal splints, adapted to the posterior surface of the thigh and leg, connected behind by an ordinary male and female screw, by means of which the joint may be gradually extended, or the more complex apparatus (fig. 5) may be used.

Fig. 5.



It consists of *a a*, mahogany board; *b b*, moveable padded metal pieces, and *c*, laced circular bandage, serving to encase and fix the thigh and pelvis; *d*, laced stocking and straps, secured to the screw *m*, constituting the means by which the foot is drawn downwards, and the articular extremities of knee drawn asunder; *f*, concave pad, serving, through the agency of *o*, to press down the knee; *e*, moveable pad, attached to a moveable screw, adapted so as to press the fibula and tibia inwardly; *g*, similar pad, to press the internal condyle outwardly; *h*, one of a pair of uprights, on which rests transverse piece *i*, serving as a bridge, from which, by means of the strap *k*, the upper portion of the tibia is elevated; *l*, a spring, the action of which inverts the foot, and, combined with *m*, inverts the leg.

When, however, the rigidity is very considerable, the deformity having existed during several years, and mechanical means offer no prospect of cure, the propriety of resorting to tenotomy should be considered. The parts that may require division are the tendons of the biceps, semi-membranosus, semi-tendinosus muscles, the lower portion of the fibres of the vastus externus muscle and the fascia above it, some bands of fascia in the popliteal region, and sometimes the more superficial of the nerves which supply the gastrocnemii or traverse its surface. Occasionally, section of the sartorius and gracilis tendons will assist the restoration of the limb. The necessity of each or all of these sections should be determined from the existence of such an amount of tension in each of the tissues as would greatly or insuperably oppose mechanical elongation. The section of the nervous filaments in question can only be deemed essential after having divided the muscular structures and fasciæ, when you will sometimes discover one or more cords rendered tense, on endeavouring gently to extend the limb. If unaware of their nature, you might, before their section, suppose them to be fibrous bands; but the peculiar pain complained of by the patient will indicate their character. An experience founded on the performance of the operation in numerous cases, and the management of the subsequent mechanical treatment, has shown me the propriety of not leaving these filaments undivided. If stretched during the after-treatment very severe pains may be experienced during weeks, or even months. In short, I am convinced that much suffering is spared by the section; the filaments

reunite, and recovery from the ankylosis ensues without neuralgia, and without numbness or diminished power in the muscles.

Should an old, firm, indented cicatrix appear, by its adhesion to the bone beneath, to be capable of offering resistance to the extension of the limb, its deeper attachment may, if practicable, be *subcutaneously* divided.

The operation, when properly conducted, is followed by no pain or febrile disturbance; the punctures cicatrise on the third or fourth day, being a day or two later than when tenotomy is practised in the foot, probably in consequence of the greater laxity and abundance of the cellular tissue in the popliteal region. No attempt to effect by violence immediate reduction of the ankylosis should be made, and it is important to await complete cicatrisation of the punctures before the application of extending apparatus. Neglect of this precaution may separate the agglutinated puncture, lacerate the cellular tissue of the ham before it is protected from the external air by perfect cicatrisation, and, by providing a spot for the commencement of suppuration, occasion a considerable abscess among the structures of this important region; whereas I have never witnessed the slightest delay in the cicatrisation, the most trifling blush of inflammation, or one drop of pus, where rest of the limb has been scrupulously enjoined.

On union of the punctures, the more important portion of the treatment, the gradual removal of the deformity, may be commenced.

LECTURE UPON SURGERY

AS A

DIVISION OF THE HEALING ART;

BEING THE

INTRODUCTORY DISCOURSE,

Delivered at King's College, London, Session 1843-4,

By W. FERGUSSON, Esq., Professor of Surgery in King's College, and Surgeon to King's College Hospital.

The extensive utility of surgery as a branch of medicine. Surgery not to be practised efficiently without a knowledge of the whole science of medicine. Operations the opprobria of surgery, notwithstanding their occasional necessity and value. Object of lectures on surgery. Importance of studying disease at the bedside, and impropriety of devoting attention solely to "great cases."

GENTLEMEN,—The department of medical education which I have the honour to superintend in this institution, constitutes a large proportion of the ordinary occupations of the medical practitioner. The duties pertaining to the province of surgery are so numerous, so extensive, and so important, that at every step in practice they are brought into requisition. Almost every manipulation, little or great, which is applied to the person during sickness, may be said to be surgical: on the instant that the human being is born a surgical process is resorted to to effect the complete separation between mother and child: in the last years of existence, if old age is attained, it seldom happens that some portion of the wonderful mechanism in which the vital principle has lodged so long, does not decay and require the sustaining aid of surgery: and whatever be the cause of a deviation from that condition which constitutes health, its removal or the alleviation of the affection will, in the generality of instances, demand the interference of this department of the healing art. So extensive, indeed, is the field of surgery, that in the progress of time it has been arranged in such a manner that portions of it have been deemed sufficient to engross the sole attention of separate individuals, who have devoted themselves to the practice of midwifery, ophthalmic surgery, dentistry, and other subdivisions, as inclination or circumstances have induced them to select.

Surgery, however, strictly so called, constitutes only a moiety of the healing art, and in the estimation of many the practice of physic is of more unquestionable utility to mankind. It would be an invidious task to contrast the two, and no one entertaining a just regard for the profession would attempt to do so on such an occasion as this. I deem it more in accordance with my duties to point out to you that the practice of physic and that of surgery are so closely allied,—that each bears such an important relation to the other,—that a knowledge of the two is absolutely required to constitute either the physician or surgeon of the present day. There are few cases in surgery which do not at some period of their treatment require the assistance of medicine, and whilst I leave to my colleague, Dr. Budd, to elucidate those subjects which, beyond dispute, come under the province of the physician, it will be part of my functions to point out those conditions and examples in which you must resort to the aid of physic to ensure a successful result to such remedial measures as pertain to the art of surgery. I shall have numerous opportunities of illustrating these doctrines in the progress of this course, and shall therefore rest contented on the present occasion by alluding to such striking examples as these:—

Here are two sketches, one of the disease called erysipelas of the head and face; the other of a similar affection on the hand and arm. Now, these are susceptible of being greatly relieved, perhaps cured, by means which are considered to be directly surgical,

such as fomentations, leeches, scarifications, and others, which I need not now particularise. But the chances are, that if such conditions were treated solely by these means, in all probability the patients would die. In severe local affections the constitution sympathises with them to such an extent,—in other words, the natural and healthy functions of the brain, stomach, bowels, skin, and, indeed, of every organ of the body, become so seriously affected, that unless alleviated and again restored to a more natural condition by the aid of medicines administered internally, life could not long be sustained. Here, however, the well-educated surgeon avails himself of his knowledge of physic. At one time he exhibits an anodyne, which has a soothing influence on the brain and nervous system, allays pain and irritation, and induces calm and refreshing sleep. Again, he prescribes an alterative, to affect the stomach and liver,—a laxative or purge for the bowels, a diuretic for the kidneys, a diaphoretic for the skin, or, by a judicious combination of two or more of these therapeutic agents, he so acts upon, so alters and improves, the condition of the whole system, that the disease gradually yields, as it were, and is beaten from point to point under the influence and skill of the professional attendant. But, Gentlemen, much skill and practical experience, great judgment and nicety of discrimination, are required for the judicious treatment of such cases. Also let us take, for another example, such a case as this: a person receives a violent local injury, perhaps a fracture accompanied with laceration of the soft parts and great loss of blood—it may be a severe gun-shot injury,—and the immediate effects on the constitution may be these,—the person suddenly becomes faint; the face and surface of the body everywhere become pale, livid, and suffused, with cold, clammy perspiration; the pulse sinks; the heart's action is barely perceptible, and the voice is reduced to a whisper. If succour be not near death will probably ensue, yet in most instances such a condition is speedily relieved by the exhibition of a cordial or stimulant,—a mouthful of cold water, a draught of warm fluid, a little ammonia, or of an aromatic tincture; a little wine, or alcohol in any of its forms, may speedily invigorate the flagging powers of life and rouse the constitution to bear up against the future effects of the local injury. Now, although it cannot be said that there is much professional skill required in the exhibition of stimulants in this example, yet it is an instance of the influence of medicine in a case undoubtedly surgical in its nature; and it is a condition, moreover, which the practical surgeon has constantly in view when he is about to perform any operation of consequence. He must have wine and cordials near at hand to avert the state of shock, and it has often happened that life (which must otherwise have been lost on the instant) has been saved by such remedial measures. The surgeon of the present day, Gentlemen, must, in a manner, be equally skilful in the exhibition of internal remedies as the external appliances, and yet, withal, "the thousand natural shocks that flesh is heir to" render the field of practice so extensive that the physician and surgeon has each in his own professional capacity ample opportunities of exercising the highest intellectual skill without trespassing to any palpable extent on the confines of the other's province.

Such views are entertained by every well-educated professional man of the present day. Such I have long entertained and taught, and such, too, were those of the highest of all modern surgical authorities, Sir Astley Cooper. In a lecture, introductory to one of his courses, he has stated,—"The study of medicine is important to the surgeon; he should be able to prescribe with certainty; should well understand the great influence of local disease on the constitution, as well as the *origin* of local disease from constitutional derangement,—without such knowledge he knows but half his duty. On the other hand, a physician cannot be a good judge of surgical cases, and notwithstanding my respect for the physicians of Guy's Hospital, I would not hold my situation in that establishment unless I had the right of prescribing for my surgical patients. I had in one of these hospitals a man under my care for a compound fracture, and had great hopes of saving the patient as he was doing well; but a physician, whilst going through the ward, visited him, and ordered a cathartic, which, acting rather violently, disturbed him so much that fatal consequences ensued. That a physician should not interfere with patients of this kind is therefore evident; but I do not mean to say that one profession is to be upheld at the expense of the other; far from it, indeed; they should mutually assist in the great duty of preserving human existence."

The younger pupils here may naturally ask wherein, then, consists the difference between physic and surgery; and I trust that those already advanced in these studies will bear with me whilst I adduce a few examples, by way of illustration, for those who are as yet uninitiated. The differences are well marked in some instances, but, as you will soon perceive, in others they cannot be so well defined.

Here, for example, is an instance where there has been a dislocation of the shoulder-joint, and with such a case it is the surgeon's duty alone to deal; it is for him to apply those mechanical measures which are requisite to force the head of the bone into its natural position, and to restore the symmetry of the shoulders. Again, here is a specimen of fracture of the femur, and so awkwardly

have the fragments united that we may conclude there has been no professional skill used in its treatment; it is the surgeon's duty to adjust the fragments and to keep them in apposition in such a manner that the bone may be restored to its primitive length and relations. Here, again, is a morbid growth, a tumour, as we say technically, which the surgeon has, by a dexterous and skilful use of the knife, removed entirely from a patient's body, leaving a scar hardly perceptible. These are cases purely of a surgical character,—possibly from first to last not a single dose of medicine being required,—and certainly being instances wherein internal remedies could not have been of the smallest avail. But here is an example of a disease of a more debatable character. The little sore you have represented here, one which, in professional language, we term a chancre, is of that nature that in the estimation of some (the doctrine may be said to have been universal previously to the last forty years), it cannot be cured without the abundant aid of one of the most powerful remedies in daily use among practitioners. The disease is considered by most parties strictly surgical, and if this be admitted, it is one where the surgeon must resort to the aid of physic. Here, again, is another form of disease—a concretion—a stone which has formed in the urinary bladder. In the treatment of such a case much may be done to alleviate the patient's sufferings by means of remedies exhibited internally; nay, it may be said that if the treatment were begun in proper time the particles composing the stone might be prevented from assuming a tangible form; in other words, the condition of the blood and urine might be so altered by the use of appropriate medicines internally that the predisposition to the formation of such a solid substance would be entirely removed. But when a stone is once formed it usually causes so much pain and suffering that the patient willingly submits to a dangerous mechanical process, executed by the hands of the surgeon, whereby he is effectually relieved of the immediate cause of all his misery. Such a case, Gentlemen, is one truly of a surgical kind, although much skill in medicine may be evinced in its judicious treatment.

Perhaps the younger pupils present may be somewhat amazed that I should allude to a draught of cold or warm fluid as having any medicinal effect; yet, nevertheless, much benefit may result from such means, as might be exemplified in many ways. On this very subject of stone in the bladder the practitioner may sometimes, by a judicious use of fluids—diluents, as they are technically termed—such as barley-water, induce such a flow through the urinary bladder as shall cause a small concretion to be swept along in the stream, and thus may the patient be safely and easily relieved from one of the most painful and dangerous diseases. Here is a calculus of very considerable magnitude which was got rid of in this way, and here is another of more recent date which has been put into my hands to-day by my colleague, Dr. Farre. It is a mulberry-stone, passed by one of his out-patients at the hospital, who had for some time complained of irritation in the bladder, and to whom diluents were administered.

I shall now allude to one case only of a medical character. A person is one day in the enjoyment of excellent health, and feels himself capable of enduring almost any degree of fatigue; the next day he is listless, unwilling to take exercise, and feels as if he had been beaten all over; within a few days his appetite is almost entirely gone; he has had shiverings, perhaps flushings of the surface of the whole body, pain in the back, and severe headach, which have gradually increased; the pulse has become quick and bounding; the mouth parched; the skin dry; the bowels confined; the urine high coloured and scanty; the eye has become suffused; there may be considerable cerebral excitement, perhaps delirium; the patient, in short, has been attacked with alarming fever. Such a case originating spontaneously, as it were,—that is, without any apparent cause,—is strictly one belonging to the province of the physician, and is most appropriately treated by internal remedies. Yet such a condition is by no means unusual in a case purely surgical, as is exemplified in the fever which occasionally follows severe injuries, or the performance of capital operations, and it often happens that the physician in the treatment of his case deems the use of the lancet and other surgical appliances absolutely requisite. In short, at each step we move, whether as physician or surgeon, we perceive the boundary line to be so uncertain or so difficult to establish that, with the reservation of a few glaring cases on each side,—and instead of contending for the supremacy of what Richard Wiseman has called "The Nobility and Dignity of Chirurgery," or, with Heister, entering into the argument that surgery "is coeval with mankind, and therefore the true parent of medicine,"—we ought at once to assent to the view taken by Sir Astley Cooper that the physician and surgeon "should mutually assist in the good duty of preserving human existence."

Although it may be said that it is my specific duty to teach you surgery, and although I shall do this to the best of my power, in accordance with the custom in modern schools, you ought to bear in mind that my tuition here constitutes a portion only of that education which is essential to qualify you as practitioners in surgery. It is now partly your duty and partly mine to apply and illustrate in a practical manner certain elementary branches of instruction

to which your attention has been devoted in a former session. I have now to treat of the injuries and surgical diseases of those textures and regions with whose physical organisation and functions you are in a manner already well acquainted; and whilst I do so you will have no difficulty in perceiving the intimate relations which subsist between anatomy, physiology, and surgery; indeed, so essential are the two former to a just appreciation of surgery, that in its practical details we have to make constant reference to both, and I, therefore, cannot too earnestly impress upon your minds the necessity for a thorough knowledge of these subjects. You must not be content with that instruction which you may acquire from lectures, demonstrations, and book-reading at home, as regards anatomy, but you ought to make yourselves thoroughly conversant with each texture, organ, and region, by a diligent application in the practical rooms, whereby you will not only acquire the requisite knowledge, but familiarise yourselves with the use of those instruments which you will afterwards have to employ on the living body, and with many of those manipulations which constitute an important share of the practice of surgery. In addition, Gentlemen, such a course of study is the only one whereby you can prepare yourselves for correctly discriminating all those deviations from healthy structure which are recognised under the term morbid anatomy—a department of pathology with which the practitioner cannot be too conversant, and which, in fact, is in the present day so extensive in its range as to form a very considerable portion of your professional education and pursuits.

It would occupy too much of our time to-day were I to select a single example even from each department which may be deemed essential to a just appreciation of surgery, whether from anatomy, general, morbid, or descriptive; from physiology; from chemistry; from materia medica; or from pharmacy; but as I shall have frequent opportunities of doing so in after parts of the course, I shall rest satisfied with one illustration, which will show the influence of some of the collateral subjects over the individual field of surgery. Here is a specimen of morbid anatomy,—of diseased structure,—an aneurism, a condition of an artery which but too surely leads to a fatal result unless retarded by the interference of the surgeon. In former times this disease was considered in a manner beyond the influence and skill of the practitioner. Afterwards bold attempts were made to remove the mass with the knife, proceedings which were frequently attended with fatal results. The disease may be defined to be an imperfection in the main artery of a limb; in other words, an obstruction to the main current of life. Physiology pointed out a beautiful provision of nature in such a case. The small arteries given off above the seat of disease, which formerly only served for the nourishment of the part, assumed a new function,—they carried the blood beyond the seat of disease, and thus was the life of the part sustained through innumerable small channels. But physiology went a step further, and, in combination with anatomy, in a manner threw into the hands of the surgeon the sceptre of power. It was the fortunate lot of one of the greatest stars in our profession, John Hunter, to show that instead of performing a painful, bloody, dangerous, and uncertain operation, directly upon the swelling, the anatomical and physiological surgeon—after a much more simple and scientific proceeding, executed at a considerable distance from the seat of disease,—the nature of which it will be part of my duty afterwards to teach—might leave such a mass to be dealt with by nature, whose power and resources are such as to cause the gradual disappearance of the tumour by that kind of process which Mr. Hunter denominated "interstitial absorption."

It has been asserted that operations on the living body are the opprobria of surgery, as it is thereby tacitly allowed that our curative measures are of no further avail; but although there is seeming truth in this, it forms no just ground, in the present state of our knowledge, against the performance of operations which, from what we know, seem absolutely required for the future comfort of a patient, or, possibly, to give him a chance of prolonged life. The pilot is not blamed for raising the storm which engulphs the vessel, and the skilful mariner is applauded for saving the ship at the expense of portions of the rigging. Why, then, should it be supposed that the surgeon ought to be all powerful over nature? Is he, of all his fellow men, expected to possess this mighty influence?

If, from causes over which we have no more control than over the winds of heaven, a fellow-creature is about to sink under the harassing influence of a local injury or disease, and if the surgeon, by his skill in judging as to the healthy constitution of the rest of the body, and in removing that which is incurably affected, can thereby save his patient's life, and thus, probably, restore to his family and to society a useful member, is he on that account to have his name branded as acting a part opprobrious to surgery? Was it better to allow the shattered limb of Huskisson to remain on his body than to remove the wounded arm of Nelson? The statesman was lost, but the hero was saved!

I must caution you, however, not to allow yourselves to be dazzled by the apparent brilliancy of surgical operations, more especially those which are of great magnitude,

and thus to risk the neglecting of other departments of your education which are of equal consequence, and, perhaps, greater, in the ordinary practice of the profession. There can be little apology for the student of the present day not making himself familiar with all the operations in surgery; but there can be still less for him who neglects the study of those minor details which he is much more frequently required to put into useful execution. I trust that my example may have that influence upon you as shall encourage you to look with interest upon all departments of this branch of the profession, and that you will not fail to be impressed with the truth of the saying, that good surgery depends as much upon the minutiæ of practice as upon those exciting achievements which are from time to time witnessed in the operating theatre of a hospital; and, moreover, that you will always keep in view, that whatever praise may be due to a surgeon for the able performance of an operation, when such a proceeding is absolutely necessary, there is much more due to him who, by his skill, can avert the necessity for such an extreme measure.

In acquiring a knowledge of the principles and practice of surgery let me earnestly intreat you to devote as much of your time to hospital attendance as you can possibly spare from other avocations. Bear constantly in mind that it is not alone by listening to lectures that you are to become usefully proficient. There are few subjects which any teacher can bring under your notice which will not be found treated of at greater length in published works, and the success and value of his prelections will depend chiefly upon the manner in which he brings each topic under notice, and the illustrations which he brings to bear upon it, whether these be in the shape of well-selected cases, preparations, diagrams, or examples of disease which may be open to the cognisance of all in the hospital wards. A good and plain digest of the present condition of surgery is, in my opinion, what the young student principally stands in need of, and any views peculiar to the teacher himself, which must, of necessity, bear small proportion to the whole matters to be discussed in the course, can readily be interwoven in an appropriate manner with the ordinary lectures. But it is not so much to hear novelty that you are required to attend surgical lectures, as that you should acquire a knowledge of ordinary doctrines and ordinary modes of practice; and such knowledge is most appropriately fixed in your mind by the study of cases in the hospital. Remember that it is not to see the great cases in surgery only that you are required to attend those institutions. These are but "few and far between" in the routine of daily business, and your attention should be as sedulously given to the treatment of an ulcer or some such case as to the most important in the catalogue of surgical diseases. Indeed, it is not unusual to see a surgeon of admirable skill more puzzled with the treatment of some small and insignificant-looking sore than in the treatment of such cases as are generally esteemed of greater moment; and it is wonderful how slight a change, if judiciously adopted, will induce a successful result. These, Gentlemen, are points of practice which can only be learned by that kind of personal experience which is to be had in carefully watching the progress of cases of disease: you would do well to take notes on those occasions, — for there is no better method of impressing facts on your mind; and as in your future intercourse with your professional brethren you will frequently have to enter upon explanations and details regarding diseases under your charge, the free use of your pen and thoughts in the early periods of your studies will greatly facilitate this part of your avocations hereafter.

TUMOUR OF THE ANTRUM. REMOVAL OF THE UPPER JAW BONE.

To the Editor of THE LANCET.

SIR,—As the India medical periodicals for July last have not, as yet, perhaps reached you, and the enclosed case, which has been forwarded to me by the overland mail, originally published in the "India Jour. of Med. and Phys. Sciences" seems an important one, you will, I dare say, give it a place in THE LANCET. It relates to the removal of the superior maxillary bone, by operation, in consequence of a tumour in the antrum. The operator was my friend, Mr. Raleigh, surgeon of the Native Hospital, and professor of surgery in the Medical College, Calcutta. The result of the operation proved very satisfactory, although, at one time, the symptoms of reaction threatened to be urgent, but were speedily reduced by judicious treatment. You will, I think, admit that, considering its formidable character, ten minutes was a short time for the operation. It is gratifying, too, to learn, from Mr. Raleigh's success, that much more of the osseous structure for the support of important parts, to say nothing of the prevention of deformity, may be preserved, in such an operation, than might be anticipated, by the use of the chisel. It is no less satisfactory to think that the precaution of tying the carotid, or internal maxillary, may be safely dispensed with. I am, Sir, your obedient servant,

J. GRANT,
Bengal Medical Establishment.
Grosvenor-place, Bath,
Oct. 25, 1843.

Dunomoey, a native female, of tolerably robust frame, and of healthy general appear-

ance, aged about twenty-seven years, mother of two children, applied at the Native Hospital for the removal of a tumour of the left side of the face, which she first perceived about seven months since, and which, during the last month, had rapidly increased in growth. At the time of applying at the hospital the disease presented, externally, a large semi-globular swelling, occupying the cheek of the affected side, from the orbit downwards.

On examination of the interior of the mouth, it was observed that a tumour, occupying the left antrum Highmorianum, protruded from, and had partially absorbed, the bony parietes of that cavity, so as to form a hard half-bony, but in some parts elastic swelling, of the outer surface of the superior maxillary bone, of the size of a half-section of a common sized billiard-ball, extending from the inferior margin of the orbit to the socket of the teeth, downwards, anteriorly to the nasal process, and posteriorly to the bulbous process of that bone; whilst, in the roof of the mouth, a corresponding bulging of the palatine surface of the bone existed, to the extent of half a large walnut, so as completely to occupy the left half of the palate only. On the most prominent point of the tumour externally ulceration had commenced. The whole of the teeth of that half of the upper jaw, although apparently sound, were quite loose, and partially ejected from the alveolar processes. So far as could be ascertained by external inspection, the disease appeared to be confined to the left superior maxillary bone, and not to have ascended beyond the natural limit of the orbit.

June 4. The patient was placed on her back, on an operating table of ordinary height; her head, which was supported by a firm pillow, being turned to the right side, so as to afford me command over the left side of the head and face; in this position she was steadily held by my two hospital assistants, Messrs. Foy and Tresham, whilst Dr. R. Stuart, assistant-surgeon of the institution, stood on the opposite side of the patient, prepared to make pressure on the carotid artery, in case of necessity for doing so.

The left anterior incisor tooth being first extracted with a forceps, I commenced an incision over the middle of the zygomatic arch, and carried it down, cutting at once completely through the soft parts, to the angle of the mouth, avoiding the course of the parotid duct, which I considered would be below, and posterior to, any part of the course of my incision; and then, by free strokes with the knife, I dissected up the muscles and integuments of the face, so as (when they where reflected on the forehead) completely to expose the external surface of the tumour, and lay bare the superior maxillary and malar bones, in a line with the upper edge of the zygomatic arch, inferior margin of the orbit, and root of the nasal process of the superior maxillary bone. In the course of this dissection the cartilaginous septum of the nose having been separated from the spinous process, and the left ala detached from its connections, they were retracted in common with the whole cheek, by an assistant.

During this first stage of the operation, copious hæmorrhage ensued from the vessels supplying the integuments and muscles of the face, and the facial artery required compression for a time, by the thumb and finger of an assistant. Some inconvenience was experienced by large quantities of blood flowing into the fauces, and the efforts of the patient to cough it up; the loss of blood, however, in all, did not exceed sixteen or twenty ounces.

As soon as the bleeding was sufficiently restrained to admit of my pursuing the operation, I introduced one blade of a strong pair of bone-forceps into the nostril, and the other into the mouth, and, with no great force, at two nips, divided the bony palate through its centre, as far back as the transverse palatine suture. I now found that by grasping the whole jaw, including the tumour, I could move it a little, and on insinuating the point of my forefinger between the globe of the eye and edge of the orbit, at the same time that I did so move it, I was satisfied that its orbitar plate retained its natural position, and that the configuration of the orbit had not been impaired; I consequently determined to try to save the orbit entire, as well as the zygomatic arch, with the double object of preserving the natural protection of the eye, and of lessening the deformity probably consequent on an operation where the orbitar plate of the upper jaw, and the malar bone are removed. For this purpose I used a very sharp chisel, the blade of which was fully three-fourths of an inch wide, and a small wooden mallet (both of which had been prepared for the occasion); and, commencing at the root of the nasal process of the superior maxillary bone, in a line just below the inferior margin of the orbit, with a smart rap of the chisel by the mallet, I cut through the bone to the extent of the width of the chisel, and at three similar applications of that instrument completely divided the superior maxillary and inferior angle of the malar bone.

I now found the upper jaw with the tumour so much detached, that with little force I pressed it down with my left thumb and fingers, whilst, with a scalpel, I separated its posterior connections with the muscles, soft palate, &c., and then, disconnecting it from the ossa palati, brought away the tumour entire, with the body of the upper jaw bone, leaving the velum palati, uvula, &c., uninjured. The oozing of blood, from the internal deep-seated spongy osseous parts

was so very trifling as to be suppressed by pressure with a sponge for a few seconds; nor did the hæmorrhage from the more superficial soft parts continue sufficiently long, nor was it of such importance as to require the application of a single ligature; a circumstance in further proof of the absence of any necessity for subjecting the patient to the formidable, and in itself sometimes fatal, operation of tying the carotid or internal maxillary arteries, as a precautionary measure to the removal of the superior maxillary bone.

The exposed parts having been carefully cleansed, a piece of fine sponge, sufficiently large to fill the excavation, was introduced, and the integuments, &c., of the cheek were brought over it, and united by several sutures; the angle of the mouth being preserved in its natural position, a few narrow strips of adhesive plaster were applied in support of the sutures, so as to unite the edges of the incision with accuracy, and over this a cold-water dressing was kept constantly applied. The patient bore the operation with great fortitude, and although she became faint when near its completion, she soon rallied.

Epitome of Treatment.—Previously to the operation, which was performed at eight, a.m., June 4th, the patient's bowels had been cleared by medicine, and immediately subsequent to operation no further treatment was required than a cold-water local dressing. Perfect quietude was enjoined, and an occasional teaspoonful of water was passed into the back of the throat to relieve thirst.

At four, p.m., her pulse beat 130, and at eight, p.m., 144; the skin was hot and dry, and she seemed to suffer headach.

5th, a.m. Had a little sleep in the night, and this morning appears easy; the face is swollen; pulse rapid, and skin hot, &c. A purgative enema; cold local applications continued. P.M. Slept nearly through the whole day; bowels twice moved by the injection. Fluid food and drink are administered by a teaspoon passed back into the throat.

7th. Febrile symptoms moderating; the discharge absorbed by the sponge having become offensive the sponge was withdrawn, and the internal surface of the wound was syringed with plain water every three hours, and a purgative enema was again administered.

8th. Swelling of face, heat of skin, and frequency of pulse continue; discharge from the wound, healthy pus. *Castor oil*, ℥ss. Local applications continued.

14th. Doing well under the same course of treatment as before observed; on this day the sutures were all removed, the adhesive straps being retained.

17th. Up to this day progressed gradually, the bowels having been kept open by an occasional dose of oil, or an enema. The wound cleaned internally by syringe, and externally cold dressing continued. P.M. Had accession of fever. A mercurial purgative, followed by a dose of castor oil, was prescribed.

18th. Bowels freely moved; febrile symptoms have abated.

19th. Had a good night, and is free from fever. Removed the straps of adhesive plaster, as, with exception of about three lines in extent at the upper edge of the incision, the external wound was healed. The internal surface of the excavation presents a smooth, healthy, granulated surface, from which a moderate quantity of healthy pus is secreted. Continue cold-water external dressing, syringe internal wound, and occasional aperients.

22nd. The external wound completely healed; she can masticate soft food with the right upper and lower jaws, and swallow it, or fluids, with perfect ease, and no inconvenience; no exfoliation of bone whatever has taken place.

July 1st. Perfectly recovered.

2nd. Discharged from the hospital, at which time the following was the condition of the parts involved in the operation:—

Internally.—The chasm occasioned by the removal of the superior maxillary bone is lined and partially filled up by granulation, having the colour and smooth appearance of the natural lining of the mouth and fauces; the soft palate and uvula are in their original state.

Externally.—A slight degree of flattening of the left cheek, and the cicatrix of the incision, are the only unnatural appearances, and it is quite extraordinary how trifling a degree of deformity exists; the patient can speak quite distinctly, but with a thickness or nasal intonation of voice.

Remarks.—In the several descriptions which I have read of this operation (and the directions given in some elementary surgical works for its performance), it appears evident that the orbitar plate of the superior maxillary bone has been removed, as well as the entire malar bone also, a circumstance which must of necessity have rendered the operation tedious, as well as very much added to the subsequent deformity, and exposure of the globe of the eye, beyond that which is incurred by the mode of operating which I pursued in the foregoing case, and which enabled me, with perfect deliberation, to complete the operation within ten minutes (timed by a watch by Mr. Kean, Ceylon student of the Medical College), saving the lateral bony arch of the nose, orbit, and the zygomatic arch, and thus preserving the prominent formation of the cheek, and the natural protection of the eye against external violence, objects which I should recommend being always aimed at where the parts are not so directly involved in disease as to require their removal on that account.

I wish distinctly to explain that the sharp edge of the chisel, smartly propelled by the mallet, produced a clean division of the bones, without occasioning any splintering, and that the entire separation of the upper bony connection of the superior maxillary bone did not occupy more than one minute of time; whereas, in dividing these parts in the usually advised manner, with a saw or forceps, separating the inferior muscles, &c., of the eye, from the orbitar plate, and wrenching that process from its junction by suture with surrounding bones within the orbit, I can easily conceive much time must be expended to the excruciating agony of the patient, and in such instances as exemplified by the present case, to the unnecessary destruction of important parts, and uncalled for extent of eventual deformity. It will be noticed that I did not divide the centre of the lip, as is commonly recommended, and I found no difficulty in completely exposing the bony side of the face by reflecting the soft parts from the lateral incision.

WALTER RALEIGH,
Surgeon of the Native Hospital.
Calcutta, July 4, 1843.

STRIDULOUS CONVULSION IN INFANTS.

To the Editor of THE LANCET.

SIR,—I transmit, for insertion in THE LANCET, a case of stridulous convulsion in an infant, corresponding in results with the very original and scientific details of the one published by Dr. Marshall Hall in your valuable Journal on July 9, 1842, page 505.

The disease in question is considered by Dr. M. Hall to consist in a peculiar susceptibility of the excito-motor property of the nervous system, the immediate attacks being the action of sources of irritation or excitement on that property, the susceptibility of which should, therefore, if possible, be diminished, if the causes of excitement cannot be carefully avoided; the most obvious of which are dentition, indigestible food, morbid alvine matters, external agents, and mental emotions. Fully convinced of the rationality of Dr. Hall's remarks, I think the following case is illustrative of the soundness of his conclusions. In January last I was summoned to the son of a gentleman in this town, ætat. three months, who had been attacked with frequent fits of croupal inspiration, which passed away in a few minutes, the child afterwards appearing as well as usual. The mother expressed great anxiety for him, as her eldest son had died during infancy with symptoms which began in the same way. In a few days these attacks were accompanied with severe convulsions, some of which lasted eight or ten hours. The patient was stout and remarkably well-formed; gums broad and inflamed; head hot; drivelling; bowels confined and evacuations light in colour; skin cold, the arms and legs presenting a blue and congested appearance. It was evident to me that these symptoms were identical with those of the elder son, who was under my care. The same cause, probably, existed in both instances, viz., dentition, producing a peculiar susceptibility of the excito-motor property of the nervous system.

I lanced the gums all round twice a-day; leeched the temples twice or thrice; clothed the child in flannel from the neck to the wrists and ankles; kept the head constantly cool with a lotion of spirits of wine and water; had the feet frequently immersed in a foot-bath of warm water with mustard, and the apartment darkened. That the milk of the mother might not be a source of irritation, a healthy young wet-nurse was procured, and allowed to nurse the infant only once in three hours. To remove morbid alvine evacuations, a grain of calomel and five grains of rhubarb, were given every night. At this time the patient had six or eight fits of convulsions daily; at the end of the first week, two or three fits in the twenty-four hours; in three weeks from the commencement the convulsions were less frequent and less severe; the gums not so inflamed; the blueness of the arms and feet less; the head cooler; the countenance more tranquil; the stools healthier; and the sleep often sound and refreshing.

Feb. 20. The gums lanced once a-day, and this was repeated until June, during which time the croupal inspiration was seldom heard, and there were only three attacks of convulsions. The incisors came through the gums one by one. About the middle of the month the child to be carried into the open air every day, if the wind be not from the north or north-east. A powder every third night. The gums were now lanced twice a-week. At the latter end of the month, upon one occasion, they were not lanced on the usual day, and on the following morning the convulsions returned with great violence. They soon, however, yielded to a free division of the gums.

July 1. The gum covering the canine tooth on the right side in the upper jaw became inflamed, a slough formed, and a conical shell, resembling the enamel of a canine tooth, came away. Four bicuspid teeth visible through the gums; at the end of July they came through. An entire absence of convulsions and croupal inspiration for several weeks. The weather being hot, the flannel coverings are removed. He now takes a small quantity of food through a bottle twice a-day, preparatory to weaning. He grows, and is fleshy and healthful in appearance. If the gums be not scarified on the regular day, he often becomes restless and feverish, and the bowels are relaxed.

August. Hooping-cough being epidemic,

he is suffering from a slight attack, which does not reproduce the convulsions.

Sep. 24. He is in the country, and improves greatly. The gums still lanced once a week. No more teeth; hooping-cough well.

Oct. 20. The patient is twelve months old; he has had no attack of convulsion since June, and he appears to be in perfect health. I remain, Sir, your obedient servant,

HENRY MOON, M.R.C.S.

Lewes, Oct. 20, 1843.

EXTRACT OF BELLADONNA IN LARYNGISMUS STRIDULUS.

To the Editor.—Sir: Permit me to make known to the medical profession, through the medium of THE LANCET, the efficacy of extract of belladonna in laryngismus stridulus. The case occurred in a child a year and a half old, and was one of extreme severity and long duration. All the ordinary remedies for this obscure disease were ineffectually tried, viz., leeches, blisters, opiate and iodine frictions, and warm bathing, exnally; and, internally, calomel, antimony, opium, and hydriodate of potash, with frequent scarifications of the gums. The good effect of a quarter of a grain of extract of belladonna, mixed with a little sugar and water, and given thrice daily, was so immediate that I feel justified in attributing the cure to that medicine.

Eight or ten cases of this disease have come under my notice, all of which, if I remember rightly, have proved fatal, excepting two. I was permitted to make a partial post-mortem examination of one case, but I did not discover any diseased appearance or enlargement of the thymus gland. I am, Sir, your obedient servant,

E. COOPER.

Tombland, Norwich, Oct. 27, 1843.

PREVALENCE OF ERUPTIONS.

To the Editor of THE LANCET.

SIR,—A fact which has arrested my attention during almost the whole past period of the present year is the prevalence of generally slight, but sometimes considerable, eruptive affections in children, particularly suckling children. As director of the Royal Jennerian and London Vaccine Institution, I vaccinate about 6000 to 7000 children annually, and I have never been so struck as I have been this year with the fact referred to above. Whether this condition is to be referred to general distress occasioning the female parents to feed upon inferior food, and thus to impart a modified milk to the child, I do not pretend to offer any decisive opinion; but to the fact of the general prevalence of eruptive disorder I can testify. There is one circumstance which, perhaps, causes this fact still further to excite my attention. It is that I *avoid* vaccinating children *with eruptions*, because, although the vaccine may take effect, it is quite certain that it cannot exert so perfect a constitutional protecting influence as when no eruptive condition interferes with its modifying power. In thus refusing to vaccinate while the child has eruption it is curious that offence is almost always given to the parent, who says, "Oh, it is only the tooth-rash;" "it is a little cold." There is another fact in connection herewith which experience has brought out; it is, that if a child, *having eruption*, be vaccinated, oftentimes extensive *ulcerations* take place, all of which are ascribed to the want of genuineness of the vaccine matter; whereas other children, vaccinated with the same matter and on the same day, have been affected perfectly, and with no marks but those of the beautiful vaccine vesicles. So that much firmness is sometimes required. If you will not vaccinate because of eruption, you offend the parent; if you do vaccinate, and eruptions take place, then ignorance charges you with using impure matter. Yours sincerely,

JOHN EPPS, M.D.

Great Russell-street,
Oct. 17, 1843.

SPERMATORRHŒA.

To the Editor.—Sir: THE LANCET of the 14th October (page 46) contains some observations by Dr. Ranking, of Bury St. Edmunds, on the causes, pathology, and treatment of spermatorrhœa, which betrays several imperfections in his knowledge of the subject. Every one who is acquainted with the writings of Lallemand will at once perceive that the observations of Dr. R. are little more than an abridgment of those of the French pathologist, containing much that is valuable in the work of that author, but also including many of his errors, exaggerations, and prejudices. When noticing the little attention which the subject of spermatorrhœa has received in this country, Dr. R. has failed to remark that Mr. Curling's recent work on the "Diseases of the Testis," which has lately been reviewed in your Journal, contains an account of this affection. Under the head of "diagnosis," Dr. R. inconsiderately states that there are no positive signs by which the presence of seminal fluid in the urine can be detected. He should have known that if semen exist in the urine it can always be satisfactorily ascertained by the detection of spermatozoa under the microscope. This remark will be a sufficient reply to the inquiries of a correspondent in a late number of your Journal, page 68.

In treating of cases of imagined impotence Dr. R. notices the well-known recommendation of advising the patient to pass a few nights in bed with a female without

attempting sexual intercourse, a recommendation which he ascribes to Sir A. Cooper, but which was originally given by Mr. John Hunter.

In speaking of the application of lunar caustic in cases of spermatorrhœa, Dr. R. scarcely does justice to Sir E. Home, who certainly relieved two cases of the disease by this treatment long before it was practised by Lallemand. The directions given by Dr. R. for making the application are faulty, and little calculated to aid the practitioner who is desirous of trying this plan of treatment. He does not say whether the instrument should be curved or straight; he recommends that it should be revolved, which, as the posterior is the only part of the urethra requiring to be cauterised, is quite unnecessary; and he directs the application to be made to the membranous portion of the canal, instead of to the prostatic, with which the affected ducts communicate. Dr. R. says that his own "experience of the remedy is not extensive," and that he has "*caused* it to be tried only in three cases." The doctor will, I trust, excuse my suggesting that with so limited an experience of the disease as he has exhibited he might have left to others, those who possess a more perfect knowledge, the task of explaining to the profession its causes, its pathology, and its treatment. I am, Sir, your obedient servant,

CHIRURGUS.

Oct. 25, 1843.

ON

PAINFUL AFFECTION OF THE BREAST.

In a memoir, published in the "Archives Générales de Medecine," for September, Dr. RUFZ, of La Martinique, gives several interesting cases of the disease above-named, first clearly described by Sir ASTLEY COOPER, under the name of "Irritable Tumour of the Breast," and to which the appellation of "mastodynia," or "neuralgia of the mamma," is now generally applied. The eleven cases given or alluded to by Dr. RUFZ seem all to refer to that form of the malady in which the neuralgic pains are accompanied by general or local induration of the mammary gland, which, no doubt, is by far the most frequently observed. Indeed, it is questionable whether ulterior observation will not show that the form of mammary disease in which the pains irradiate round a small or large induration of the glandular structure of the mamma, often increasing or diminishing, according as the induration increases or diminishes, and seldom following the course of the thoracic nerves, is perfectly distinct from that in which there is no induration of the mammary gland, but merely excessive pain, increasing on the slightest pressure. In his late work on Neuralgia, M. VALLEIX mentions a fact of great importance in the diagnosis of intercostal neuralgia, viz., that generally speaking, pressure is not painful along the whole course of the nerve affected, as in most other neuralgiæ, but merely here and there; so that unless this circumstance be borne in mind, intercostal neuralgia may often be overlooked. Dr. RUFZ tested two of his cases in the way mentioned by M. VALLEIX, but did not find the local painful points which ought to have existed had there been intercostal neuralgia, according to the latter physician. Had, however, all the cases in question been thus tested, and found to present the local pains along the course of the intercostal nerves, it would by no means have proved that the mammary induration was merely a symptom of neuralgia, it being quite as rational to look upon those pains as the result of the induration itself.

In most of the cases of Dr. RUFZ the patients referred the origin of the affection under which they laboured to a blow on the breast, generally received a long time previously. The three following cases present facts of peculiar interest. The first illustrates the pathological anatomy of this form of induration of the mammary gland, and the two last offer a new method of treating it, viz., by subcutaneous incisions:—

CASE I.

— Rosie, a mulatto woman, aged forty-eight years, of strong constitution, enjoying generally good health, has felt for the last ten or twelve years a severe pain in the left breast; this pain is lancinating, deeply situated, and sometimes so acute as to be insupportable. It is not continued, but experienced in irregular but closely-approximated fits. The origin of the pain appears to be in the breast, from which it irradiates to the clavicle and the back; the slightest pressure revives it, so that the patient carefully avoids contact. The breast scarcely differs from the right one, which is perfectly free from pain; it is merely rather more voluminous, but quite soft to the touch, unless a certain degree of pressure be exercised, and then some small indurations of the gland are felt, indurations which are more painful than other parts. On consulting me the woman stated that she had already had recourse to all kinds of remedies, leeches,

blisters, and liniments of various sorts. She came to me, she stated, to ask me to amputate the breast.

Finding her firmly resolved to undergo an operation, I at last gave way, and amputated the breast on the 8th of May, 1839. The operation was soon performed, and the only arteries which required ligature were two or three small ones, at the superior angle of the wound. The cicatrisation took place without any accident occurring, and was completed by the 15th of June. At that epoch the pains had entirely disappeared, and have not since returned. I have seen this patient since repeatedly, and she has each time testified her gratitude to me in the warmest manner, assuring me that I had given new life to her.

The gland thus extirpated was examined with care, and the following is a description of the state in which I found it. The gland itself is surrounded by abundant fatty cellular tissue, its proper tissue is firm, of a white mother-of-pearl hue, and of the consistence of ligament. Two or three spots, corresponding to the small indurations felt during life, present a texture homogeneous to the rest,—only the glandular tissue appears rather more closely approximated. Here and there are found small portions of fatty cellular tissue. The glandular structure is hard, but does not grate under the scalpel when incised, nor does pressure force out any liquid. The proper membrane of the gland is with difficulty separated from it, but does not send into its tissue appreciable prolongations. When exposed to the air the white glandular structure reddens. In a word, the gland appears to be nearly in a natural state, its tissue only appearing rather harder and whiter, and these are modifications which can scarcely be looked upon as the first stages of degenerescence.

Case II.

In November, 1841, I was consulted by a mulatto woman, aged thirty-five, of good constitution, thin, mother of three children. She had never had any serious disease, and had lived all her life in the country. The mammæ are so slightly developed that one would scarcely think she had suckled her three children, which is the case; they are soft and elastic, and the nipple is well formed. The skin which covers the breasts is natural, merely presenting several large, blue, subcutaneous veins. The mammary glands present an equal volume on both sides; they are perfectly moveable, but one of them presents here and there, in the depth of the glandular tissue, several small indurations, about as large as peas. These indurations are very sensible to the touch, and the origin of lancinating pains sufficiently acute to have induced the patient to undertake a long journey to seek relief. The slightest shock revives these pains, which pass on towards the clavicle, and not towards the back; pressure in any other region is unattended with pain.

On the 13th of November I made three subcutaneous incisions with an ordinary ténotome, dividing the entire gland. There was a slight oozing of blood from the wounds, and a slight infiltration or thrombus formed underneath the skin. The operation was not very painful. On the 19th, the results of the former operation having nearly disappeared, I made two new incisions, which proved as innocuous as the first. The only precautions taken were to apply a little sticking-plaster to the small wounds, and to support the breast with a handkerchief thrown round the neck.

On the 15th of December the indurations had entirely disappeared, and the patient experienced none of her former pains. She stated that she felt very well, and intended to return home; since then I have heard nothing of her.

Case III.

A mulatto woman, named Assez, aged thirty-three, consulted me for an affection of the breast. Thin, of a weak constitution, often ill, she had been for seven years suffering from a painful affection of the left breast. The pain was nearly continual, but subject to exacerbation. At certain times and on certain days it was prolonged toward the clavicle, sometimes toward the back, or along the arm; but although these regions were examined with the greatest care no decidedly painful spots were found. The left breast is not more voluminous than the right. The mammary gland is perfectly moveable and of normal size, but here and there it presents small indurations, about the size of nuts, and extremely painful on pressure. This painful state of the gland has existed for seven years without increasing in intensity, or modifying the structure of the organ in any other way than that which we have described. I had recourse to several plans of treatment, repeated applications of leeches, twelve blisters applied successively, frictions with the hydriodate of potash, with ammoniacal liniments, with opiated liniments, with tartarised antimony, but in vain. The patient experienced scarcely any relief from these various medications.

On the 26th of October, 1839, I passed a seton through the mammary gland; a small artery was wounded, but the hæmorrhage was stopped by compression. An abundant suppuration set in; the breast became more painful.

On the 18th of November the seton was withdrawn, no abscess had formed, and the wound soon healed. Although the indurations had partly disappeared, and had ceased to be so painful, the patient was not cured; the pains soon returned and extended to the right breast. The patient suffered so much

that she would consent to anything, even to amputation.

On the 31st of August, 1840, acupuncture was resorted to with six needles. From this plan of treatment she experienced momentary relief, but she soon relapsed into her former state, and on the 1st of September, 1842, still complained of acute pains, which were prolonged towards the back, but in so erratic a manner that she could not point out exactly their direction; pressure did not reveal any particular painful spot. It was then that I resolved to resort to the subcutaneous incisions which had so well succeeded in the former case.

On the 1st and 8th of September the gland was divided in its entire thickness and in every direction. On the first day there was hæmorrhage from the small wound made to introduce the ténotome, but it was soon stopped by compression; there was considerable ecchymosis, but it gave rise to no accident.

On the 1st of November the patient was well, but the pains were not entirely extinguished,—every now and then she experienced lancinating sensations.

The first of these cases, that of the mulatto woman Rosie, is a very remarkable one, illustrating as it does the great length of time during which these indurations of the mammary gland may exist without giving rise to degenerescence of its tissue. We cannot help remarking that all English surgeons would have considered the amputation of the whole breast perfectly unwarranted under such circumstances, and we are really amused to find Dr. Rufz calmly stating "that it is not necessary for him to justify the operation he performed, as the gratitude of his patient is a sufficient excuse; she was fatigued," he adds, "with ordinary remedies, and wished for a decisive one to be adopted." No remedy, indeed, could have proved more decisive than the extirpation of the offending organ. Dr. Rufz justly remarks, "that the white, hard texture of the gland, and more especially of the indurated portions, bears some analogy to incipient fibrous cancer or scirrhus, but that taking into consideration the absence of any fluid exhalation on pressure, the absence of the grating when incised, the integrity of the external fibrous membrane, &c., he thinks himself warranted in denying the existence of such degenerescence." We ourselves merely see in his description of the gland the characters which pertain to the glandular structure of the mamma of a woman advanced in life, in which the usual fibrous texture is rather exaggerated.

Of the two latter cases the first only is conclusive as regards the new method of treatment employed by Dr. Rufz. In the second, although he appears to regard it as a successful case, it seems that the pains had not quite disappeared two months after the operation, so that we can only look upon the patient as relieved, not as cured. Dr. Rufz does not explain his views with respect to the *modus operandi* of the division of the mammary gland by subcutaneous incisions. M. Valleix, in some remarks on the subject, thinks that they act by giving rise to a slight inflammation of the incised tissues, which reacts on the neuralgia, that he believes to be the primary disease, in the same way as blisters would do if applied externally. Whatever view we may take of the *rationale* of the operation, these cases seem to prove that it is likely to be generally innocuous in its effects, if again tried, as it deserves to be, in obstinate cases.

Dr. Rufz has met with this affection once in a robust man, of thirty-eight years of age, captain of a merchant vessel. He complained of a severe pain in the right breast, which was rather hard, and painful on pressure. It appeared to give way under the influence of cupping, but returned a year after. A blister was applied, which completely cured him. The age of Dr. Rufz's patients varied between eighteen and forty-eight years. Most of them were thin, nervous women; four, however, were rather inclined to *embonpoint*. He did not observe that connection between this affection and uterine disorder which Sir Astley Cooper states that he has generally met with. Of the eleven cases of this disease which he has seen two were successfully treated by repeated purgatives, two by compression, two by subcutaneous incisions, and one by amputation. He does not mention the treatment pursued in the remaining four. He looks upon compression as a valuable agent, but as unsuited to the means of the poor, as it must be often renewed, continued for weeks, or months, and is incompatible with any laborious occupation.

SUTURE OF THE PERINEUM, PERFORMED IMMEDIATELY AFTER DELIVERY.

M. Danyan, Surgeon to the Maternité, Paris, has recently published in the "Journal de Chirurgie" some remarks and cases on this subject.

M. Danyan, in contradiction to M. Roux and M. Velpeau, is in favour of the suture being resorted to immediately in cases of rupture of the perineum during delivery; thus adopting the views which Dieffenbach was the first to promulgate on the continent. M. Danyan gives six cases, in which he has recently performed the operation, prefacing them thus:—

"The rupture of the perineum is not always, by any means, preceded by extreme distention of the soft parts; this accident may be produced by the too rapid or too violent expulsion of the head, or by its extraction with the forceps, when that extraction is too rapidly performed, or the forceps unexpectedly give way, and that without the perineum being distended to such a degree as to destroy its vitality and powers of cohesion previous to the rupture. When the rupture has taken place the swelling which follows is not always great, and even were this to be feared the application of sutures appears to me more calculated to diminish than to increase it. Generally speaking, immediately after the accident the parts are slightly swollen, but at the same time in such a state of flaccidity that the lips of the rupture are either in juxta-position, or at least susceptible of being applied one to the other without the slightest difficulty. Are not these as favourable conditions for obtaining a speedy union as it is possible to wish for? When, on the contrary, the lips of the wound are separately cicatrised, the state of the patient is far from being as advantageous, inasmuch as a raw surface must be produced by cutting off the edge of each lip, and considerable traction used to approximate the surfaces.

"The lochial discharge is not an obstacle either to the performance of the operation or to the cicatrisation of the wound. After the first gush which follows delivery the flow of blood is generally slight, not sufficient to interfere with the operation; and once it has been performed any discharge which takes place, however abundant it may be, merely bathes the circumference of the wound, providing the coaptation has been carefully performed. Besides, lotions and frequent injections preserve the patient from the irritation which might otherwise result from the lengthened contact of the lochiæ, and the frequent use of the catheter prevents the parts coming in contact with the urine.

"Are such measures incompatible with the position of a recently-delivered female, even if she be also kept lying on the back, with the thighs close to each other? Certainly not; indeed, they are sometimes rendered necessary by the state of the woman, when no operation whatever has been performed, and are perfectly innocuous if carefully and prudently carried into effect. It is, I confess, painful to our feelings to be obliged to propose to a poor woman, tired by a long and harassing labour, an operation the very idea of which would terrify her, even if in a state of perfect health, and which must appear still more terrible to her just as she begins to enjoy the calm for which she has been so long sighing; yet I can assert that of the six women on whom I operated at the Maternité, there was not one who did not at once consent, on my proposing the operation, and who did not bear it with courage and resignation. In town practice, no doubt, the consent of the patient would be more difficult to obtain, and as the hope of a spontaneous cure will, in all probability, induce the medical attendant generally to remain silent with regard to the lesion which his patient has suffered, we may anticipate that such operations will be rarely performed elsewhere than in public hospitals."

Case 1.—The first of M. Danyan's cases is that of a young woman, aged 18, who was delivered of her first child after a regular but difficult labour, which had lasted twenty hours. The perineum was ruptured during the expulsion of the head, the rupture extending from the inferior commissure of the vulva to the sphincter ani, several fibres of which were denuded. The lips were slightly swollen, flaccid, and remained in contact spontaneously unless the thighs were separated. They were immediately united by means of the quilled suture, the outer margin of the lips of the wound having been slightly thrown outwards by the action of the suture; a small twisted suture was also resorted to in order to remedy this eversion. Frequent injections were used, the urine carefully drawn off whenever the slightest desire was manifested, and cloths soaked in an emollient fluid kept on the perineum. On the third day the twisted suture was taken off, and on the fifth the threads and rolls of diachylon. The lips of the solution of continuity had become united, but in their deep portion only. The edges had not united, and were thrown outwards; gradually, however, they grew nearer to each other, and at last become united, leaving only a small central depression in the centre. This depression was then found to be the external orifice of a small vagino-perineal fistula, which was to be attributed, M. Danyan thinks, to the middle thread having been placed too deeply. It was cauterised with the acid nitrate of mercury, and soon healed. The patient was seen four months after she had left the hospital; the perineum was then solid, thick, and elastic; it would,

indeed, have been impossible to suspect the previous existence of a perineal rupture had it not been for the sutures, the traces of which were still evident. The lochial discharge was very abundant with this woman.

Case 2. — The second case is that of a woman aged 31. In the eighth month of this her first pregnancy she experienced a severe moral emotion, which brought on labour. Thirty-five hours after the rupture of the membranes, the child was expelled by a violent effort, and the perineum ruptured on the median line, as far as the sphincter ani. The patient was not seen until the next day, when the parts were at once united by the quilled suture. The perineum being small two threads only were placed. The threads were withdrawn on the fourth day, and the lips of the wound were found to have united. The cicatrisation had become perfect on the eighth day, and on the twenty-third the patient left the Maternité.

Case 3.—The third case is that of a woman, aged 31, who was delivered of a first child after twenty-four hours labour. The contractions were never very violent, not even at last. The rupture commenced in the centre of the perineum before the head had escaped, and was completed on the simultaneous expulsion of the head and shoulders. The rupture extended to the sphincter ani, which was slightly injured. The quilled suture was applied twenty hours after the delivery, and the twisted suture was also used to remedy the eversion of the external edges. Febrile symptoms having manifested themselves during the day, and the perineum having become swollen and painful, the patient was bled and purged. The following day the perineum was much less tumefied, and was no longer painful. On the fourth day the pins were withdrawn, and on the fifth the quilled suture. The adhesion was nearly general, although the lochiæ had been very abundant, and very fetid. There remained, however, for some time, a linear depression on the median line, which continued to suppurate, as also the course of two or three of the suture threads. On leaving, three weeks after the operation, there was merely a slight serous secretion from the depression we have described. A year afterwards she returned to the hospital, complaining that the two posterior suture depressions had continued to discharge matter. On examination, it was ascertained that they communicated with the intestine, and that, consequently, there existed a fistula in ano. The fistula was incised, and the cure was speedy and definitive. M. Danyan thinks that the formation of fistula was owing to his having placed the lower thread of the quilled suture too low, thus perforating the intestine.

Case 4.—In the fourth case the patient, aged 34, was delivered of a first child after most immoderate efforts on her own part, and the perineum ruptured as far as the sphincter. The operation was performed twelve hours after delivery, in the same manner as before. The pins were taken out on the fourth day and the threads on the sixth. The reunion was perfect, and when she left the hospital the perineum was completely restored.

Case 5.—In the fifth case the patient, aged 21, robust, and rather corpulent, primiparous, had the perineum ruptured as far as the sphincter ani, as in the former cases. She was seen three hours after the accident. There was no swelling, but the edges of the wound were uneven. Two small irregular flaps were excised and the quilled suture applied. The eversion being slight, three interrupted sutures only were resorted to externally. The union, which, at first, did not appear very solid, became as firm, in the end, as in the former cases. A circumstance occurred with this patient which had not presented itself with any of the former, the formation of a small eschar near the margin of the anus. On its falling there remained a wound rather deep towards the rectum superficial anteriorly, which gave rise, for several days, to an abundant and fetid discharge; gradually, however, it healed up, and on the woman leaving the hospital it was nearly, although not quite, healed.

Case 6.—The sixth case was the only one in which the rupture comprised the sphincter ani and lower portion of the rectum. The operation was not successful. The patient, aged 24, strong and robust, primiparous, arrived at the hospital in the last stage of labour. Although the perineum was properly supported, says M. Danyan (which we think rather doubtful), a rent formed in the posterior region of the perineum, near to the anus, through which the nose, the mouth, and a part of the cheek of the child protruded. As the vulva did not dilate, and it was evident the progress of the labour would complete the laceration, it was considered advisable to incise, longitudinally, the perineum unto the lower commissures, in order to have a more regular wound. The child was at once expelled. The wound, when seen two hours after delivery, was rather ecchymosed, and more tumefied than in the preceding cases. The suture was at once performed; the wound being of considerable length, four threads were necessary for the quilled suture and five needles for the twisted one. The termination of the recto-vaginal septum, which was lacerated, was comprised in the first suture. The same precautions were used as in the other cases, and the swelling soon disappeared, so that, at first, M. Danyan thought the operation would be successful; unfortunately, it did not prove so.

When, on the fourth day, the pins were withdrawn, not only the wound had not united, but an eschar occupied both lips, and a few days later, on the threads being entirely withdrawn, the eschars were found to occupy their entire thickness. After the separation of the mortified parts a healthy suppuration set in, and the granulating surfaces would, no doubt, have easily united had they been brought in contact. The patient would not, however, consent to the operation, slight as it was, and left the hospital on the twenty-fifth day without being cured. The recto-vaginal septum had united, but the lips of the laceration of the perineum had cicatrised separately, and there was inability to retain the fæces.

M. Danyan remarks that although this patient was operated on unsuccessfully her position was in no way aggravated by the operation. He attributes his non-success to the vitality of the parts having been partly destroyed by the long-continued and violent pressure of the head on the perineum, and not to the rupture having been complete. He concludes by stating that, founding his opinion in a great measure on the preceding cases, he thinks that the immediate reunion of the perineum, when ruptured, ought always to be attempted as soon as possible after the accident has occurred, unless the state of the parts is such as to render it probable that eschars will form. He adds that even if the state of the perineal region is such as to give rise to the formation of eschars, it would appear to him advisable to endeavour to bring about the union of the lips of the wound as soon as ever they have fallen, as, by doing so, the most formidable part (to the patient) of the operation of perineoraphy is dispensed with, viz., the preliminary paring away of the cicatrised edges of the wound.

ADVANTAGE OF MEDICINES IN A LIQUID FORM.

It has been found that fifteen grains of sulphate of quinine, given in infusion of senna, is more efficacious as a tonic, notwithstanding the purgative quality of the mixture, than twenty-four grains of sulphate of quinine administered in the form of pills. Panizza supposes the causes of this to be that the senna, by promoting the peristaltic action of the alimentary tube, and augmenting the secretion of the bowels, excites the production of a fluid adapted perfectly to dissolve the quinine; and that the quinine, in passing through the intestine in a state of solution, is placed in contact with a much larger extent of surface, and disposed for absorption much more readily than if taken in a solid form.—*Panizza, in L'Experience.*

THE LANCET.

London, Saturday, November 4, 1843.

The medical public of Paris has been greatly excited by the turn which the contest between M. Guerin and the hospital surgeons of that capital has taken. At page 92 we described, fully, the origin of this contest, which, however, it may be as well briefly to recapitulate. The hospital surgeons of Paris are all named, under the concours, after a series of very severe ordeals, by a jury appointed by the non-medical Board which governs the hospitals. This mode of nomination has been so long followed as to have become *a law* which the hospital surgeons consider it imperative on the Board to follow. The custom was, however, infringed, about twelve years ago, in favour of M. Civiale, the lithotritist, who was, at that epoch, named (without having submitted to the concours) surgeon to the Hôpital Necker. About two years ago M. Guerin, the well-known orthopædist, had several wards allotted to him at the Hôpital des Enfans, and a similar appointment has recently been conferred on M. Le Roy d'Etiolles. The hospital surgeons, in a body, have protested against the two latter nominations, and their cause has been warmly espoused by the medical press of Paris.

M. Guerin, the editor of the "Gazette Médicale," an influential weekly periodical, finding that the columns of his journal do not afford sufficient scope to his personal defence, has brought an action for libel against the editors of three other principal journals, viz., M. Vidal (editor of the "Gazette des Hôpitaux"); M. Malgaigne (editor of the "Journal de Chirurgie"); and M. Henrioz (editor of the "Experience"); from each of whom he claims twenty thousand francs damages, that is, about 800*l.*; or altogether, 2500*l.* The cause was to have come before the tribunals on the 11th of October, but, owing to the import-

ance of the proceedings and some other motives, the trial has been deferred until the 14th of November. The action brought by M. GUERIN against these gentlemen appears to be based on several grounds. M. GUERIN, (as also do several other of the Parisian orthopædists), often appears before the Academie de Médecine and other public medical bodies, as the author of papers on his special subject of practice, orthopædy—papers which, latterly, have principally been based on the cases treated at the Hôpital des Enfans. The results, thus announced, having been frequently impugned, he, some time ago, drew up a statistical report of the cases treated in his wards, and addressed it to the Hospital Board. This report, which was extremely favourable to his practice, was analysed, severely, by the medical press, and its veracity contested, especially by the three journals in question, and now M. GUERIN founds his judicial attack, partly on these strictures and partly on some passages of the protestation lately made against his nomination to the Hôpital des Enfans by the Paris Hospital surgeons, among whom are the editors who have been made the objects of the action at law.

As might have been expected, M. GUERIN has raised against him the entire body of Paris surgeons, who have come to the assistance of their friends in distress; and although he is supported, to a certain extent, by the Hospital Board, and by the Dean of the Faculty, who is said to be very amicably inclined towards him, it is doubtful whether he will be able to make good his case against opposition so unanimous and powerful. A protestation has been drawn up by the incriminated surgeons against the step taken by M. GUERIN in prosecuting the editors of medical journals for criticisms on medical subjects, a course which, if successful, would, they say, render scientific discussion in the medical press impossible. This protestation has been signed, it is said, by nearly all the notable medical and surgical men of the day. Moreover, the official friends and nominators of M. GUERIN do not seem inclined to give him their unconditional support. The Hospital Board has just named a committee to examine into the orthopædic service of the Hôpital des Enfans, which seems to imply, on the part of the Board, a doubt as to the propriety of the appointment that it had itself made, such a measure being altogether unparallelled with reference to any of the concours-appointed surgeons. Indeed, it is contrary to precedents; for, last year, on M. BOUILLAUD, the well-known clinical professor of La Charité, asking the Board to nominate a committee to inquire into the veracity of his statements respecting his treatment of typhus fever by repeated bleeding, which had been vehemently attacked by the medical press, the Board refused to comply; thus declining, in the one case, to adopt a measure, calculated to shield a scientific man from attack, although implored to do so by the party interested, and, in the other, spontaneously selecting the very measure which it had previously repelled. This conduct shows that in the case of M. BOUILLAUD the various and severe trials through which the inculpated person had passed in order to obtain his appointment were, in the eyes of the Board, sufficient guarantees of his knowledge to make the Board consider any attempt to judge between him and his antagonists nugatory and improper; while, in the case of M. GUERIN—having no such guarantees of superior acquirements—the Board is alarmed, at the outcry of the profession, into doubts, both as to the talents of its nominee and the propriety of its own conduct. We are warranted in coming to this conclusion from the fact that the accusations brought against M. BOUILLAUD and those against M. GUERIN will not bear comparison as regards their gravity, the physician to La Charité being said, by his enemies, to kill his patients "by dozens," through his *Sangrado* treatment; whereas the editor of the "Gazette Médicale" is only accused of "putting the best foot foremost," or, in other words, of presenting a more favourable statement than the facts warrant.

The quarrel which we have thus described has brought before the Paris medical public, as a necessary corollary, the interesting question, What kind of influence have "specialities" on the medical profession? and in the discussion the "specialists" are sorely beset. Indeed, they appear, as yet, to have the worst of the fight. Their position, in a medical sense, certainly is untenable. They often unjustly claim priority of

invention in the departments of the profession which they exercise, and greater success than their brethren in practice. MM. CIVIALE and LE ROY D'ETIOLLES did not make their discoveries in lithotrity because they attended specially to the pathology of the urinary organs, but they became "specialists" because they had made those discoveries. Nor can they lay claim to even the greater part of the improvements which have since been made in that department of surgery, for most of them may, certainly, be ascribed to surgeons in general practice. These gentlemen are also reproached in Paris with being too much attached to their favourite modes of operating, at least of over-advocating them in their writings, and other eminent hospital surgeons are, consequently, considered by the profession to be even better authorities on lithotrity than its originators, and generally said to be equally successful in its performance. As regards orthopædy, it is justly remarked that we owe its most important operations—such as the section of the sterno-cleido-mastoideus, of the tendo Achillis, and of the muscles of the eye—to DUPUYTREN, DELPECH, and DIEFFENBACH, who certainly were not "specialists;" and in all the Paris surgical wards these operations are still every day performed with as much skill and success as in any orthopædic institution. The great objection to professing and practising special branches of medicine is, in our opinion, the tendency of the habit to make mere traders of those who practise them. Praise and honour are due to the man who, having directed his attention accidentally or intentionally drawn to *one* department of medicine more than to others, and having thus acquired superior knowledge in that department, devotes himself to it, heart and soul, with a view to perfect his art for the benefit of suffering humanity, to enlarge the boundaries of science, and at the same time to acquire an honourable position in the profession and society; but how few are there among special practitioners who are thus actuated! Most of them are influenced in their proceedings solely by the hope of gain—ever ready to seize any means of acquiring notoriety, we cannot call it *fame*—ever anxious to assume even a false reputation for knowledge and skill. In Paris, where orthopædy is pursued to an extent that is unknown in our own country, but few who practise it are entirely free from this blame, and some few certainly deserve only the satirical title of "boarding-house keepers for the deformed." Even the scientific M. GUERIN is not altogether free from attack on this score. His statistical report of *successful* cases—for it was nothing else—was published in all the Paris journals and profusely distributed in the provinces, as if he wished it to answer the double purpose of replying to his antagonists and advertising his cures; at least, such is the intrepretation that his colleagues in journalism and hospital labours appear to give it. Poor GUERIN! He has raised a hornet's nest around his head and will not come unstung from the attack.

As the trial involves a general question of great interest, our readers shall know, in due time, how matters get on with the Paris "specialists."

A PLAIN VERSION
OF THE
NEW CHARTER OF THE COLLEGE OF SURGEONS
IN
LINCOLN'S INN FIELDS.*

THE Charter commences by a greeting from the Queen "to all to whom these presents shall come." It then states that the College was incorporated under the charter, 40th Geo. III., and that the College has since been governed according to the provisions of that charter, a supplemental charter, 3rd Geo. IV., and certain by-laws and ordinances made by the Council.

Next, the new Charter recites that the

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* This analysis contains everything that is to be found in the Charter, excepting the legal technicalities and quaint phrases which the law-agent of the Council had employed in its construction, although, as will be seen, *the whole* of them could not be set aside. The exposition has been faithfully rendered, and may prove acceptable to the members of a profession who, in the pursuit of science, having been taught to express their own thoughts and facts in brief, simple, and intelligible language, naturally desire to find the announcements of others similarly conveyed.

corporation consists of members created by the charter of Geo. III., or by letters, issued under the College seal, testifying the qualifications of other members to practise surgery; that the College is governed by a Council of twenty-one members, ten of whom are examiners of candidates for the diploma, one of the ten being president, and two others vice-presidents, of the College, the two principal sergeant-surgeons of the crown, and the surgeon to the forces, if members of the Council, being privileged to become examiners, at vacancies, before all other persons; that privilege, however, being taken, by the new Charter, from all future sergeant-surgeons and surgeons of forces.

But her Majesty says that in order "more effectually to promote and encourage the *study* and *practice* of surgery," it seems to her to be expedient, first, that "a *new class* of members, to be called *Fellows*, should be created," who should, when receiving the "diploma of their fellowship," be older than the present "ordinary members" of the College. Secondly, that the Council of twenty-one should be increased in number. Thirdly, that all future councillors should be chosen from the class of "Fellows." Fourthly, that those councillors should not hold office for life. Fifthly, that the Council should not any longer be self-elected, but be elected by "the body of such Fellows." Sixthly, that certain alterations should be made in the election of examiners. And seventhly, that "certain further powers and privileges should be granted to the College." And then her Majesty declares that she has granted the new Charter (the provisions of which she next defines) of her own "especial grace and mere motion," at "the humble petition of *the said Royal College*," her Majesty having previously described that College—its "body politic and corporate"—as consisting of persons who were created members thereof by the Charter of Geo. III., or constituted members by "letters testimonial (under the common seal of the College) of the respective qualifications of such persons to practise the art and science of surgery," in fact, the whole of the members of the College who were alive at the granting of the new Charter, Sept. 14th, 1843.

Then come the provisions of that Charter, which first declares that henceforth the College shall be styled "The Royal College of Surgeons of England," and that the "*new class* of members" shall be called "Fellows" of the College.

That the existing Council of twenty-one, and two hundred and fifty other members of the College (or three hundred, but not more), —to be elected and declared, before the 14th of December next, by the Council of twenty-one, as the "new class" of Fellows, —together with "any such other persons" as the said Council shall, between the 14th of December, 1843, and the 14th of September, 1844,—think fit to add to the said new class —that these shall be the future "electors of the Council." Her Majesty adds that the two hundred and fifty (or three hundred) Fellows shall be elected and publicly declared by the Council with "all convenient speed" before the 14th of December, 1843, and that the said Fellows shall be elected "in such manner as the Council deem best." And that the Council shall, before the 14th of February, 1844, enrol in the Court of Chancery a "general diploma" (framed as they may think fit) containing a schedule of the names of such Fellows.

That the Fellows whom the Council may appoint between December 14th, 1843, and September 14th, 1844, shall not pay any fee for their new diplomas; that they shall have reached the age of twenty-five years; that they shall have complied with all such regulations as the Council may have directed; and that they shall have passed a "special examination," as directed by the Council; their admittance being by diploma, under seal of the College. The persons so elected Fellows need not be already members of the College, but are to become members by virtue of their admission as Fellows.

That every "Fellow" elected after September 14th, 1844, who has not already paid a fee to the College as a member, shall pay, not more than 31*l.* 10*s.* (besides the stamp duty on his diploma) for his admittance as aforesaid.

That all diplomas granted to Fellows before Sept. 14th, 1844, shall be numbered, in order to show the "priority of such diplomas among themselves."

That in the College-hall, or some other place, according to the pleasure of the Council, there shall be kept a register (according to seniority) of all the Fellows (with or without mention of their places of residence) for inspection of the members, according to

such "reasonable and proper regulations" as the Council may choose to direct. In this book the present Council of twenty-one are to be named first; then are to come the names of the Fellows elected before Dec. 14th, 1843, arranged there as in the "general diploma" that is to be enrolled in Chancery; and then the others, according to the numbers on their diplomas.

That from this time forth *no ordinary member of the College* shall be "eligible *as a member of the Council.*" Nor any person (Fellow or not) who practises "*midwifery* or *pharmacy,*" or who has practised either at any time during the five preceding years; nor unless he resides and practises surgery within five miles of the General Post-office, London. And if at any time any member of the Council practises midwifery or pharmacy, or ceases to reside within the said five miles, he shall be "liable to removal from the Council."

That the present Council of twenty-one shall continue councillors for life, their number being increased to twenty-four, by the addition of three from the new class of Fellows (who all shall be "elective, and be elected periodically,") on Thursday, July the 4th, 1844, or before August the 4th, 1844. And on the first Thursday of every future July ("for ever, hereafter," says her Majesty), or within a month thereafter, three such Fellows shall be chosen members of the Council, in manner following, and for the following purpose:—Supposing that among the "*life members* of the Council," there shall be one vacancy, and less than three vacancies, then a corresponding number of what the Charter calls "elective members of the Council" (or, to use the confused words of the document, "such less number of such elective members as, with the number of vacancies in that year among the life members, will make up the number three") shall go out of office—(we quote the Charter)—"upon the day whereon such three Fellows shall be chosen to be members as aforesaid, so that the number of the Council shall at no time exceed twenty-four." If, in any future year, three, or more than three, of the "life members" die, then "none of the elective members shall go out of office in that year, and three Fellows (and three only) shall be chosen to fill up three of such vacancies among the life members." Any vacancies more than three among the life members in that year, shall be filled up as vacancies occurring in the next year or years. But whenever the "elective members" of the Council shall be twenty-four in number, three of the twenty-four (those of longest standing without re-election) shall quit office on that day, in every year, on which day three new members of the Council shall be elected, "as aforesaid." The three departing members may, however, be re-elected to office.

If an "elective" member of Council dies (or otherwise quits office), excepting by rotation, as aforesaid, a new councillor shall presently be elected, who shall hold office until the time when the departed councillor would, by rotation, have left it, and he may then be re-elected to his office.

The 15th clause of the Charter states how the members of Council are to be elected. It gives their election to *the Fellows* (councillors included) fifteen of them being competent, if no more are present, to proceed to the election, and who are to vote in person (not by proxy) by ballot (the majority of balls or votes to decide), at a meeting convened for that purpose. The president, or a vice-president, or (in his absence) a senior member of the Council, is to be chairman at the meeting, which may be adjourned, from day to day, to complete the business, no other sort of business being performed at it. The Council are to determine what sort of notice of vacancies and elections shall be given. Unless a Fellow is "announced," according to a *by-law of the Council*, "to be *eligible* to be elected, or re-elected," and according to the priority of his name in the register-book, he shall not be balloted for as a councillor; and, if thus once "passed by" (or not nominated according to the will and pleasure of the Council), or once black-balled, he shall never be "eligible" for election, unless the Council choose to make a special by-law in his favour. But if twice "passed by" or black-balled, then he shall "for ever thereafter cease to be eligible," even in the face of any by-law.

No Fellow shall be regarded as eligible to be elected a member of the Council unless he presents to the fifteen or more electors a *certificate*, signed by a specified number of other Fellows, declaring that he is a fit and proper person for election, and neither contaminates his hands with midwifery or pharmacy, nor lives beyond the five-mile circle aforementioned.

The present ten examiners of the College shall continue in office for life, and the number of ten examiners shall not be increased. All future examiners shall be elected from the Council or any of the Fellows, by the Council, continuing in office only so long as the Council may think fit.

Any member of the Council, whether an examiner or not, may, in future, be elected president or vice-president.

Six examiners may form a court for business.

Any Fellow or member of the College admitted to the College after December 14th, 1843, who may be found guilty, on inquiry by the Council, of having obtained his diploma by fraud, or has, at any time of his life, "before or after obtaining it," says the Charter, violated any by-law or rule of the College, shall thenceforth cease to belong to the College.

In every other respect than such as is named in this new Charter, the Council of the College are to retain the powers and privileges granted to them in the two previous charters; but all future by-laws or ordinances of the College and Council must be approved, before enforcement, by one of her Majesty's principal Secretaries of State, or in such other manner as her Majesty may direct.

The last clause provides against any blunders that may have been made in drawing the Charter being adduced at law as evidence of its illegality.

WESTMINSTER MEDICAL SOCIETY.

Saturday, October 28, 1843.

Dr. Reid, President.

The following members were elected to fill the vacant offices:—As president, Mr. Fisher; vice-president, Dr. Sayer; members of council, Drs. F. Bird and Griffiths, and Messrs. Storks, Brooke, Leese, Snow, Skegg, Dunn, Lavies, and Wells.

Dr. J. B. Thompson exhibited a drawing of "The Vegetable or Bulrush Caterpillar." He agreed with Mr. Owen, in opposition to the opinion of Sir W. Hooker, that the parasite insinuated itself about the neck of the insect before the caterpillar inhumed itself in the light vegetable soil at the foot of the tree from which it dropped, and from it, in its sickening state, it was unable to free itself. The parasite was consequently warmed and nourished by the insect's body, and there lying in a motionless state, vegetated, and not only impeded the process of change in the chrysalis, but occasioned the death of the insect.

The discussion this evening had reference chiefly to ovarian dropsy and its treatment.

Dr. F. Bird, in reply to various questions, stated that the patient on whom he had operated two months since by removing an ovarian cyst, was in a state of perfect health. The most interesting point connected with the case, at the present time, was the probability that since the operation she had become pregnant. A sufficient time had not yet elapsed to determine this question satisfactorily, but the suppression of the catamenia, the condition of the areola, and of the heart, as also the presence of other symptoms of early pregnancy, rendered it probable that she was really in that condition. Whilst speaking of this case he might observe that although previous to the operation she had been tapped as many as ten times, and this nearly always in the same place, yet there existed no adhesion whatever in that part. He had found this to be the case in another instance of ovarian dropsy which he had examined after death, and in which the patient had been several times tapped.

Mr. Brooke recollected a case of ovarian dropsy in which tapping had been resorted to on four or five occasions, and no adhesion whatever had taken place.

Mr. Erichsen thought the absence of adhesion in these and similar cases might be explained on the supposition that the adhesions were broken through on the refilling of the sac, and its consequent rising in the belly.

Mr. Hancock was of opinion that adhesion did not take place at all in these cases. When the fluid was evacuated the sac became collapsed and fell down, and consequently was not in contact with the peritoneum. In cases in which operation for the removal of ovarian cysts was resorted to, might there not be a reasonable fear of the presence of smaller cysts in the opposite ovary? He had seen cases in which the operation had been performed on one side, and the opposite side had been found, after death, affected in the same manner, but not to the same extent. Was it not possible that by the removal of the disease on one side you might light it up on the other?

Dr. F. Bird observed that in the case in which he had operated the opposite ovary was healthy. He had taken some pains to determine the question as to how frequently both ovaria were affected, and had found, out of fifty cases occurring in Guy's Hospital, that not more than one-fourth of them were so affected. The small cysts found in the ovaria after death were not of so much importance, and did not appear to have increased in size. They were analogous to those cysts frequently found in the kidney, and lately described by Mr. Paget.

Dr. Reid said that the probable pregnancy which had occurred in Dr. Bird's case was of much interest. Pregnancy and ovarian dropsy might, however, coexist; he knew a lady who was affected with ovarian dropsy, and yet had borne three or four living children.

Mr. Streeter inquired what would be the probable effect of the adhesions consequent upon the operation in Dr. Bird's case on the progress of the pregnancy? Would it not prevent the complete expansion of the uterus and produce abortion? Madame Boivin had related cases of chronic inflammation of the uterus and its appendages, terminating in adhesion, which had interfered with the proper development of the uterus and produced abortion.

Dr. Bird remarked that in his case the inflammation was of the healthy kind only; and, moreover, care was taken to prevent any unnecessary extent of adhesion, and he therefore thought that his patient would escape the difficulty in question.

Dr. Reid related a case of external spontaneous rupture of an ovarian cyst through the parietes of the abdomen. The patient was a lady who had been tapped on several occasions. When in the last stage of exhaustion a small slough formed near the umbilicus, and nearly a pailful of clear limpid fluid was suddenly evacuated. She survived for fourteen days, during which there was a constant discharge from the ulcerated opening.

Mr. Chowne thought that the practice of tapping in ovarian dropsy only tended to hasten the fatal result.

Dr. Thompson detailed a case in which small doses of elaterium and frictions of iodine and hydriodate of potash ointment succeeded in affording much and permanent relief.

Mr. Streeter, and other members, deprecated the use of elaterium and all other violent purgatives in ovarian dropsy, and Dr. Reid, in relation to the diagnosis of the disease, detailed a case of pregnancy which had been mistaken for it, from the circumstance of the tumour having appeared first in the left iliac region, and proceeded from thence to the centre of the abdomen, and eventually to the right side. The stethoscope determined the true nature of the case.

Dr. F. Bird, in reply to questions, observed that he considered the practice of making a moderate incision in cases where an ovarian cyst was to be removed the most preferable mode of practice. This incision should be about three or four inches in extent. Why did we require a more extensive one than this when our object was to remove the sac entire? He had been startled in reading of cases in which the incision had been stated to be eighteen inches in length. Indeed, he could hardly conceive the possibility of such an extensive wound, for he had measured the abdomen of various women pregnant and suffering from ovarian dropsy, and he had on no one occasion found that the distance from the pubis to the ensiform cartilage was as much as eighteen inches. He thought, moreover, that such extensive incisions added materially to the danger of the operation. In his own case, in which the incision was only four and a half inches in length, the woman fainted immediately on the division of the abdominal muscles, but recovered on the prompt assistance which was rendered her by supporting the diaphragm with the hand. When the tumour was of a solid kind, then undoubtedly a larger incision might be necessary, if, indeed, an operation under such circumstances might be considered advisable. It would be very questionable if it would be successful. In the case he had operated on there was a small cerebriform tumour, about as large as an orange, appended to the sac, but this was easily moulded into a form that readily passed through the opening which had been made. A very small incision offered almost as grave objections as a large one. He recollected a case under Dr. Ashwell, at Guy's, in which an incision of only an inch and a half was made; the consequence was that when the sac was partially withdrawn there was an obstacle to the passage of the remainder, and the cyst was accordingly returned into the abdomen. The patient died of peritonitis, and on examination a small tumour was found in the parent cyst, and which, had the incision been three or four inches in extent, might have been easily removed.

Some remarks were made by members respecting the uselessness of remedies generally in ovarian dropsy, in the course of which Dr. Reid said that he had seen many cases in which the use of iodine had interfered very much with the mammæ.

MEDICAL SOCIETY OF LONDON.

Monday, October 30, 1843.

Mr. Pilcher, President.

DISCUSSION ON HYDATIDS.

The President, in drawing the attention of the society to the discussion at the last meeting, said that he thought it desirable that some distinction should be drawn between the true hydatid and the mere pellucid cyst. The treatment of these affections was also of much importance. He had been struck with a statement that had been made to the effect that pellucid cysts originated in the impregnated uterus, and produced abortion. In talking over the subject a few days since with Mr. Hare, that gentleman had given him some particulars of a case which he had attended about twenty-two years since in Leeds. The subject of this case was a woman, thirty-four years of age, in whom nothing particular had occurred either during

pregnancy, or in the labour, except that the latter was protracted and difficult; the child was a fine healthy male, the placenta natural, and of the usual size. Shortly after its expulsion a quantity of "hydatids" were expelled, sufficient to fill a washing-basin. The woman did well, and the child born at that period is now living, and is a fine young man. This case showed that the cysts in question did not produce abortion. Dr. Chowne had thought it possible, in this case, that there had been a double conception, —that a twin child had been born, and that the placenta of the other had degenerated into cysts.

Dr. WILLSHIRE thought it most important that, in speaking of "hydatids," we should draw a distinction between the genuine hydatid and the mere serous cyst. The true hydatid must be capable of being ranged under the class cystica of Rudolphi, was a separate unattached vesicle, and possessed independent vitality; while the mere serous cyst, or pseudo-hydatid, was either partially or wholly attached to the surrounding tissues and received nourishment from them. Was the hydatid an animal? To this it might be answered, that it had an independent organism. What was the origin of hydatids? He was inclined to the opinion that they had their origin in some transformation or metamorphoses of the cells of the tissues of the parent body, and that they did not result from ova *ab externo*. As to the practical bearing of the question, he believed that these growths had their origin in those bodies in which vitality was at a low ebb, and that to prevent or to remedy the disease consisted in bringing up the system to an exalted state of vitality. Judging from some experiments of M. Coste it would appear that we had, perhaps, a preventative for hydatids in iron, for that physiologist placed a number of cats, dogs, and rabbits in boxes, without light or space for motion, and exposed to a moist cold, by means of wet sponges, which were hung up in their cages. Some of these animals he fed on their ordinary diet, others were fed with ferruginous bread, containing half an ounce of the sesquioxide of iron to the pound. All the former became ill, the greater part tuberculous, but not one of those fed on the iron presented a trace of tubercles.

Mr. STEDMAN would not discuss the physiological question as to the differences which existed between the true and the pseudo-hydatid. He had seen many cases of the latter, and his experience had led him to some conclusions which would diagnosticate their presence in the uterus. He had found that they generally occurred in women who had been married for twelve or fourteen years without having children; indeed, he had seen them in no other kind of persons. The catamenia were suppressed for one, two, or three periods; the abdomen began to increase in size; there was sickness in the morning, and a motion, as of a child, was experienced. The progress of the development of hydatids, however, observed no law,—in some it is very quick, in others slow; but in all the cases he had seen the catamenia, after the end of two or three months, became regular, and so continued until the time at which the hydatids were expelled. But in some cases the motion was felt earlier than it could be in genuine pregnancy, and the abdomen became larger than was usual at the second or third month of gestation, and, notwithstanding the return of the menstrual discharge, the uterus went on enlarging, until its neck became obliterated and its mouth open, so that there was nothing to prevent a sudden rushing away of the contents of the uterus. He had said, however, that there was no law with reference to the development of hydatids, or of the symptoms which indicated their presence, as would be seen by two or three cases which he would briefly relate. A lady, sixteen years married, and having had no children, suffered from suppression of the menses for three months, at the end of which period they returned, and she continued to be regular; she was, however, subject to morning sickness, the abdomen began to enlarge, but she felt no motion of the supposed child until the sixth month. He was of opinion that in this case there was no pregnancy, but a physician of some eminence as an obstetrician did not agree with him, and preparations were made for an accouchement. There was, however, a sudden gush of fluid, containing a large quantity of hydatids, and the case terminated well. The patient, nevertheless, felt something like after-pains, and there was a lochial discharge. In a second case a lady, married for years, and without children, passed over three periods, was again regular, and the signs of pregnancy remained after the ninth month. The ergot of rye was administered, and the hydatids were expelled. In another case, on examining the abdomen, at the end of a suspected pregnancy, he found that the tumour, instead of being hard, was composed of a large pulpy mass, and gave a sensation to the hand altogether different from that given by a child. In this case the parent cyst was ruptured and the hydatids expelled. In all these cases the hydatids were detached and distinct from each other.

A discussion of some length followed between Dr. Chowne, Dr. Bennett, Mr. Dendy, and Dr. Bird, on the one hand, and Dr. Willshire on the other, respecting the origin and nature of hydatids, and other parasites in the human frame. Were they produced from ova or germs having their primordial existence external to the parent body, in which these fully-developed organisms occurred, or had they their origin in

certain peculiar transformations or metamorphoses of the cells of the tissues of the parent body itself. We regret that our space will not allow us to give the views of the different speakers.

Errata.—In Mr. Crisp's remarks last week one or two errors have crept in. For *inhabitants* read *sheep*, and for *he agreed*, read *he did not agree*. Leave out, also, the word *peculiarly*.

WESTMINSTER HOSPITAL.

DELIRIUM CUM TREMORE. EFFECTS OF OPIUM; TURPENTINE ENEMATA; STIMULI.

CLINICAL REMARKS BY DR. BASHAM.

George Wright, ætat. 42, was admitted Aug. 31, under Dr. Basham; a jeweller by trade, of habits admitting of frequent fits of intoxication of three and four days' duration. Five days since, succeeding to inebriation of three days' continuance, a severe headach supervened, confined to the occiput, and so intense in its character as to induce great irritability of the system and unusual irascibility of temper; a severe paroxysm of cardialgia accompanied the headach. There was great restlessness, with vigilance at night, and towards morning violent active delirium. These symptoms were succeeded by muscular tremors and mental hallucination, with suicidal and homicidal efforts. On admission, eleven a.m., there was violent delirium, accompanied by threats of violence towards himself and others. On making the daily visit at two, p.m., he had become more quiet; there is much nervous agitation of the hands; the intellect is more collected; and he gives a tolerable account of his symptoms and sensations. Is frequently subject to attacks of heartburn, indigestion, and palpitation of the heart. These symptoms, more or less aggravated, usually succeed a drunken fit and precede the delirium, paroxysms of which he has suffered from before. The bowels are confined; abdomen tumid and tympanitic; no pain on pressure at the epigastrium; tongue moist, but furred; pulse 60, full, compressible; circulation sluggish; difficult micturition, voids not more than half a pint of urine daily; rhythm and sounds of the heart regular. To take two grains of calomel, with half a grain of opium, every six hours, and a draught of the acetate of ammonia, with ten minims of the fluid sesquicarbonate of ammonia and twenty drops of tincture of opium, every four hours. A turpentine enema to be administered directly and repeated twice daily till the bowels have been well moved.

Sept. 1. Passed a comparatively quiet night; dozed under the influence of opium for nearly two hours, but the effects upon the patient unlike natural sleep; bowels moved freely by the enema, evacuations copious, of solid feculent masses, glued together by gelatinous mucus; abdomen less tympanitic; pulse 62, soft; tongue moist, less furred; urine natural in quantity; countenance wild and anxious; intellect confused; answers questions with much hesitation. The condition of the patient decidedly improved; he is more under control, and has exhibited no suicidal symptoms. To continue remedies.

2. Passed a very restless night, but fell asleep about nine, a.m., and did not awake till half-past two, p.m., having had five hours and a half refreshing natural sleep; he continued to doze all the afternoon. To continue remedies.

3. Passed a very tranquil night, slept sound at intervals; the senses are still disturbed by objects flitting before him, but he is conscious they are delusions, and, by an effort, dispels them; slight symptoms of salivation. To omit the pills; continue the draught. Bowels open, evacuations bilious.

4. Passed a quiet night; perfectly collected and composed this morning; no tendency to mental delusions; bowels confined; ptyalism. To omit the mixture and regulate the bowels by a cathartic draught.

Convalescence rapidly followed, and he was discharged, cured, on the 8th of September.

Dr. Basham pointed out this case as one that was very characteristic of delirium tremens. The symptoms occurred in well-marked order, and were so well defined that he considered it a most instructive case to students. The drunken paroxysms were the remote cause of the disease. The effect of frequent, continued, and excessive use of ardent spirits was exhaustion of the nervous system, derangement of the digestive apparatus, and alteration generally in the functions of the chylopoietic viscera. There are particular deranged states of the digestive apparatus which, independent of any previous nervous excitement by ardent drinks, will cause, or be accompanied by, a series of symptoms, the mildest of which may be called lowness of spirits, and which, continuing the series, often passes into hypochondriacal melancholy, from which the transition is sometimes to utter despondency and thence to suicidal despair. In delirium tremens that condition of the stomach and contingent viscera always more or less exists, and with it a perturbation of the cerebral and nervous system arising from the nervous exhaustion which has followed the long-continued excitement of previous inebriation. This perturbation of the cerebral and nervous systems is characterised by mental hallucination, muscular tremors, and constant wakefulness. In this case the progress of these essential conditions to the disease is presented to us in well-defined

order. There was first the drunken paroxysm, succeeded by indigestion, heartburn, and palpitation, followed by headach, mental delusions, and constant sleeplessness. The especial object of treatment in this disease, Dr. Basham continued, was to allay the irritability of the system and procure, if possible, natural sleep. To effect this object the use of opium will not alone suffice. A tympanitic state of the abdomen, constipated bowels, and deficient urine, all plainly speak of functions deranged which must be relieved before any favourable results can be expected. To effect this object turpentine enemata were prescribed; the constipation and tympanitis were thereby relieved, and the accumulation of fæces, agglutinated together by glairy mucus—an invariable feature in this disease—was brought away. To co-operate with these remedies calomel and opium were administered with the best effect. The evacuations, under the influence of the mercury, became bilious and better coloured, and the functions of the liver again active. The removal of these accumulated and disordered secretions was followed by a favourable change in the condition of the patient, and on the first night, although no natural sleep was obtained, yet the patient dozed under the influence of opium for two hours. Any tendency to quietude is a favourable symptom in this disease, and a sleep, of even a short interval, from the influence of opium, is often followed by one of a longer duration of the character of natural sleep, the patient usually expressing himself refreshed from it. In this case the patient was very restless, with an abatement of the more violent symptoms after the quietude produced by the opium; but in twelve hours afterwards, on the third day, after passing an unquiet and restless night, he fell asleep, and continued in a sound state for five hours and a half. He continued to doze for some hours after; but from this moment the patient was safe, and you may always rest assured that if your patient can get but a few hours of natural and apparently sound sleep, that the most anxious part of your responsibility is passed. The ammonia, with the acetate of ammonia, was given as a stimulant. It was imprudent in these cases, Dr. Basham observed, to withdraw stimuli altogether. But ammonia and opium generally produces on the system a better effect than brandy or wine; in many cases, certainly, these latter are sometimes necessary; but the ammonia is, if possible, to be prefered; as a stimulant it is more evanescent, less potent, and, in small doses with the acetate of ammonia, it relieves most effectually that subacute inflamed state of the stomach which ministers so powerfully to many of the symptoms of this disease. The patient exhibited no other symptoms of importance, and was discharged cured on the eighth day.

WESTMINSTER HOSPITAL.

To the Editor.—Sir: You have rendered much public service by exposing the abuses in our hospitals, and the neglect of their duties by the medical officers, but pray do not overlook the fact that those officers may themselves be censured undeservedly, for they are not all careless and negligent men. Some remarkable exceptions exist to the general rule in the metropolitan institutions, and it is unjust, impolitic, and foolish, not to make the discrimination, though an instance of this folly has just fallen under my notice in the board-room of the Westminster Hospital, where the foolishness was committed by a house-visitor, an unfortunate coal-meter, of immature age,—how he became house-visitor goodness only knows,—who, suddenly, in a formal written document, copied fair by his clerk, I presume, charged Dr. Kingston with being—ten mortal minutes behind his time for seeing the out-patients of the hospital,—the doctor being occupied during that very ten, in the house, upon the case of an in-patient whom he could not with propriety leave at an earlier moment! Nothing could be more silly or ill-contrived than this attack, for the accused physician happens to be a proverbially punctual, kind, and diligent officer, whose indignation at the charge might have led him to at once repay the assault, *vi et armis*, but that Mr. Meter left the room as the colour arose in the doctor's cheeks, and the choler in his breast. The misplaced counting-house vigilance was afterwards heartily laughed at by the board. Since it is both absurd and injurious to seek for mare's nests where there are so many abuses to assail, I hope that you will point out a better direction for the watchfulness of our friend of the barges and wharfs, while I have the honour to remain, Sir, your obedient servant,

A Governor of 1823.

Westminster, Oct. 31, 1843.

*** As this letter was anonymous, we have made inquiry into the statements, and find that Dr. Kingston is a man who is only likely, by unavoidable accident, to arrive beyond the proper hours at his post in the hospital. Surely it is impossible that any house-visitor of that institution can honestly consider it necessary to neglect Mr. White, for instance, in order to look after Dr. Kingston. If the visitor in question really desire to effect some good in the house, let him leave the little gnats and try to swallow that enormous camel. The whole annals of medical charities contain nothing more flagrant than may be constantly discoverable by any house-visitor in the surgical wards of the Westminster Hospital.